QUEENSLAND.

REPORT AND RECOMMENDATIONS

FOLLOWING ON

AN ECONOMIC INVESTIGATION

BY

THE LAND ADMINISTRATION BOARD

OF THE

UPPER BURNETT AND CALLIDE VALLEY LANDS

AND OF THE

OPERATIONS OF "THE UPPER BURNETT AND CALLIDE LAND SETTLEMENT ACT OF 1923."

W. L. PAYNE

1929.

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PRESENTED TO PARLIAMENT BY COMMAND.

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Table of Contents.

REPORT AND RECOMMENDATIONS ON THE UPPER BURNETT AND CALLIDE VALLEY LANDS.

Being a Report and Recommendations by the Land Administration Board following on an Economic Investigation made by the Board of the Upper Burnett and Callide Valley Land Settlement Scheme, and of the Operations of "The Upper Burnett and Callide Land Settlement Act of 1923."

TO THE HONOURABLE THE SECRETARY FOR PUBLIC LANDS.

Office of the Land Administration Board,
Brisbane, 29th May, 1929.

We have to advise that we have made a careful investigation of the Upper Burnett and Callide Valley Settlement Scheme, and now have the honour to submit the following Report and Recommendations:—

GENESIS OF INQUIRY.

I.— First duty of Board.

The Land Administration Board took office on the 1st February, 1928. It was appointed mainly for the purpose of administering "*The Land Acts Amendment Act of* 1927," which dealt mostly with grazing lands, and which was designed to assist the Sheep Grazing Industry to overcome the effects of the drought and economic difficulties with which the industry was faced. The first duty of the Board, therefore, lay in grazing areas, but other important matters were noted for attention as opportunity offered. Amongst these was the Upper Burnett and Callide Valley Land Settlement Scheme.

II.— Need for attention to Upper Burnett scheme.

This settlement scheme is the most ambitious land settlement project in Queensland's history, and, as originally conceived, was intended to provide farms for some thousands of settlers who would engage in mixed farming. When the Board was appointed, the scheme had been in operation for about four years; the whole of the first and second sections of the lands had been made available for selection; the third section had not been dealt with. In these circumstances the Board felt the need of carefully investigating the whole project to make sure that the foundations of the settlement were soundly laid before releasing more land for selection.

III.— Early administrative reform.

The Upper Burnett lands are comprised within the Gayndah Land Agent's District, and the Callide Valley Lands within the Rockhampton District. Jurisdiction over the lands, therefore, was divided between the Land Commissioners at Gayndah and Rockhampton respectively. In order to secure co-ordination in all field work and to harmonise the general administration of the settlement, the late Government, in April 1928, on the recommendation of the Board, appointed a Field Superintendent with jurisdiction over the whole area, and directly responsible to the Board at Brisbane.

IV.—Personal investigation by Board.

Having completed the more urgent adjustments of Grazing Selection tenures in terms of the 1927 Land Act, the Board, in February last, decided to proceed to the Burnett and to personally investigate the economic position of the settlement, in order to lay down definite principles of administration for the future.

Before reporting on this investigation it will be necessary to give a brief history of the settlement.

HISTORY OF SETTLEMENT.

I.—Locality of lands.

The Upper Burnett and Callide Valley lands extend from near Eidsvold on the south to near Rannes on the north, a distance of about 120 miles, and have an average width of about 40 miles. Although termed a "Valley," the area has an elevation varying from 800 to 1,700 feet.

The accompanying map shows the situation of the lands and the railways by which they are served. A map on a larger scale, showing the features of the country in greater detail and also the land selected and the land still available for settlement, is attached as Appendix G.

II.—Character of country.

The country embraces all classes of land from rich agricultural soils contained in many of the creek flats to third class grazing land, comprising coarsely grassed mountainous country. The average rainfall is about 29 inches.

The classification of the land made by Staff Surveyors, before the settlement scheme was commenced, was as follows :—

	Agricultural.		Grazing.	
	First Class.	Second Class.	First Class.	Second Class.
	Acres.	Acres.	Acres.	Acres.
Northern Burnett	186,000	400,000	498,000	336,000
Callide	104,000	391,000	90,000	488,000
Totals	290,000	791,000	588,000	824,000
Grand Total	2,493,000 acres.			

Much of the land classified as first class "grazing" land is eminently suited for dairying, as it contains many rich arable pockets. There are considerable belts of softwood and brigalow scrubs.

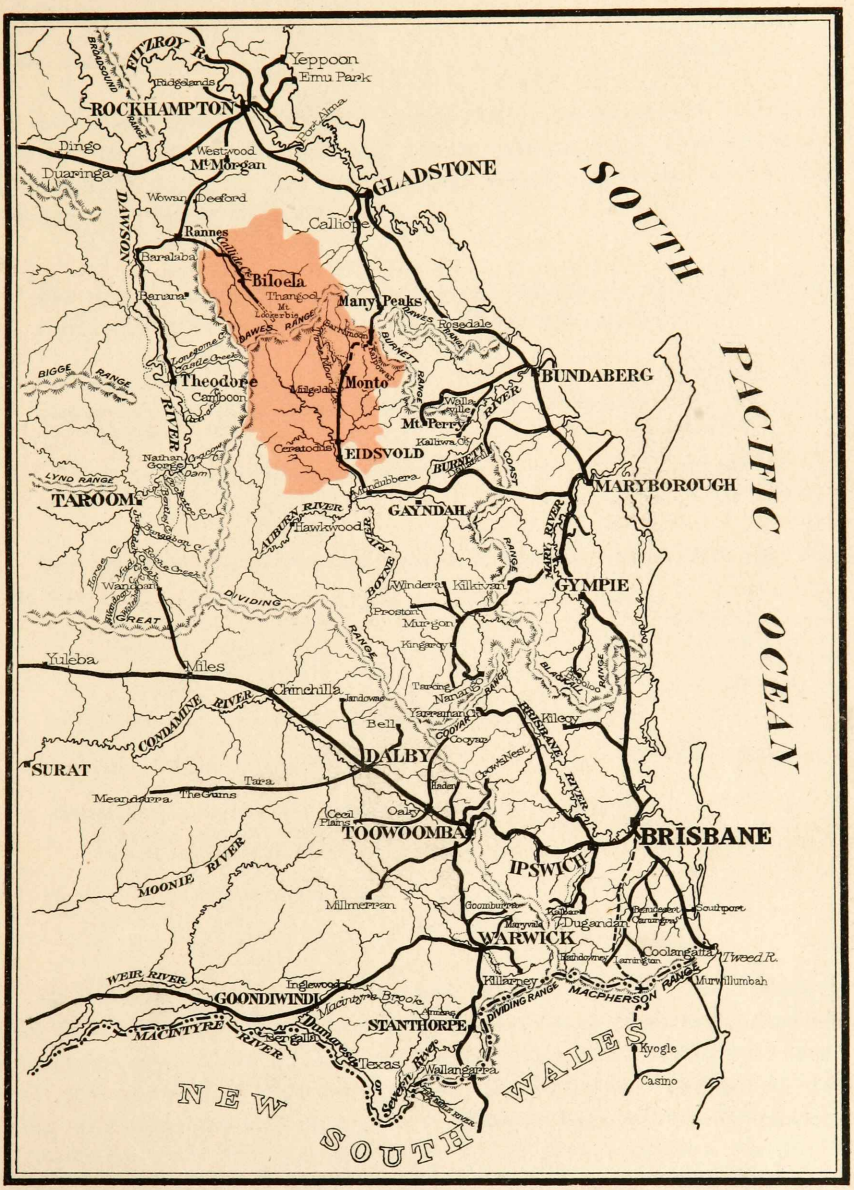
Altogether the area may be regarded as very well adapted for a successful closer settlement scheme.

III.—Previous occupants of the land.

Before the advent of the settlement scheme the lands comprised in the Upper Burnett and Callide Valley were used almost solely for grazing and were mostly in the occupation of grazing selectors and pastoral lessees.

At the time of compulsory resumption the number of occupants was 133, and the largest individual holding was 168,960 acres in area.

MAP OF THE UPPER BURNETT AND CALLIDE VALLEY LANDS.



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IV.—Resumptions for closer settlement.

The total area in respect of which notice of resumption was given, and on which compensation was fixed by the Land Appeal Court, was :—

		Acres.
33	Freeholds	31,563
168	Grazing Selections	946,579
1	Agricultural Farm	1,280
5	Prickly-pear Selections	21,623
6	Pastoral Leases	261,120
Totals 213		1,262,165

Eventually resumptions were cancelled (or are in process of cancellation) in the case of 32 holdings, mostly grazing land, comprising an area of 113,275 acres, so that the holdings actually resumed number 181, comprising an area of 1,148,890 acres.

V.—Area comprised in settlement scheme.

The area comprised in this settlement scheme is generally spoken of as about 3,000,000 acres. The exact figures are as follows :—

	Acres.
Resumed Land	1,148,890
Crown Land (including expired Grazing Selections and Pastoral Holdings)	1,262,944
Total (not including roads and reserves)	2,411,834

VI.—Special expenditure incurred.

(*a*) Land resumptions.

Compensation for the land resumed actually paid over by the Crown was :—

Leaseholds	£173,263
Freeholds	69,595
	£242,858
In addition there were Legal Fees and Costs amounting to	1,864
Total Cost of Resumptions	£244,722
Certain Resumptions were cancelled conditionally on the compensation money being refunded to the Crown. The amount refunded, or in process of refundment, is	11,678
Net Compensation paid	£233,044

(*b*) Railway construction.

New railways were needed in order to open up this land. Without railway communication the Upper Burnett could not have been used for any industry other than grazing, and closer settlement would have been out of the question. For years prior to Parliament authorising the building of the railways, there had been great rivalry between Rockhampton, Gladstone, and Maryborough as to which branch railway should be extended to the country. Each centre was anxious to obtain the trade that was certain to flow from this rich area, and railways from each centre had already been constructed to the fringe of the proposed settlement. Existing railways reached from Rockhampton to Rannes, on the north, from Gladstone to Many Peaks on the east, and from Maryborough to Mundubbera on the south of the area.

Eventually Parliament authorised the extension of all three of these railways to converge on Monto, a new township in the centre of the area.

Monto lies 103 miles from Gladstone, 179 miles from Maryborough, and 172 miles from Rockhampton. Of the three railways, that connecting with Gladstone, although the shortest, was the most costly and difficult to construct, owing to the mountainous country (the Dawes Range) through which it passes. This railway has been completed to Dalkiel, and is at present under construction to Waratah, eight miles north-east of Monto. The Maryborough-Mundubbera extension is completed and open to traffic to Monto. The Rockhampton-Rannes extension is open to Thangool—63 miles north of Monto. Rails have been laid for a few miles beyond this point, and earthwork constructed still further to Mount Lookerbie, but all work has been discontinued.

Figures supplied by the Commissioner for Railways show that the cost of the three railways to 31st March, 1929, is as follows :—

Mundubbera to Monto (complete)	£561,785
Many Peaks towards Monto (still under construction)	779,538
Rannes towards Monto (construction discontinued)	374,374
	£1,715,697

(c) Roads and bridges

As part of the settlement scheme, the Department of Public Lands undertook to construct, free of cost to the Local Authorities, the necessary roads and bridges to give pioneer access to each holding. This work was commenced in 1923 and is still proceeding. After construction, the roads and bridges are handed over to the Local Authorities, who are responsible for their future maintenance.

In the early days of this work the Department did not possess adequate machinery, and many of the roads were indifferently formed. The present standard of work, which is done with the aid of modern plant, is, however, quite satisfactory, and settlers are being provided with reasonably good roads. The bridges throughout the area, constructed by the Lands Department, are first class structures.

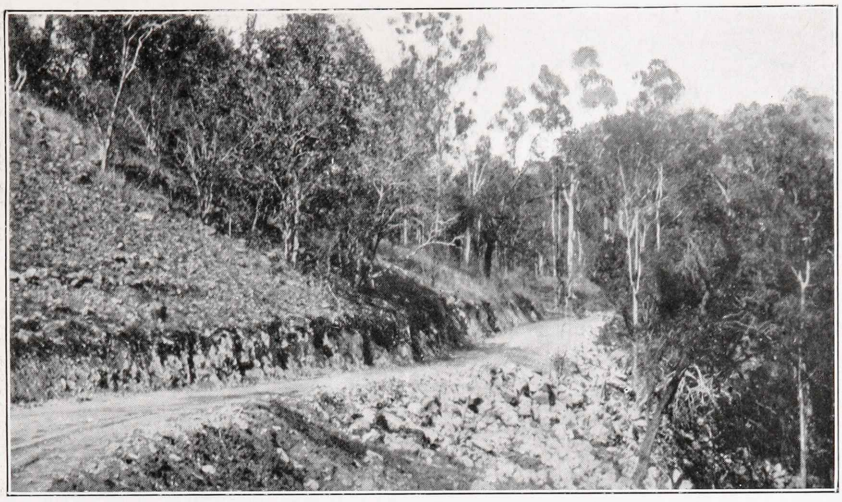
Altogether 634 miles of road and five bridges and causeways have been constructed. The total expenditure on these works to 31st March, 1929, amounted to £78,523 12s. 7d. Detailed particulars are given later in a separate section of this Report dealing with Roads and Bridges.

VII.—Water facilities and Agricultural Bank advances.

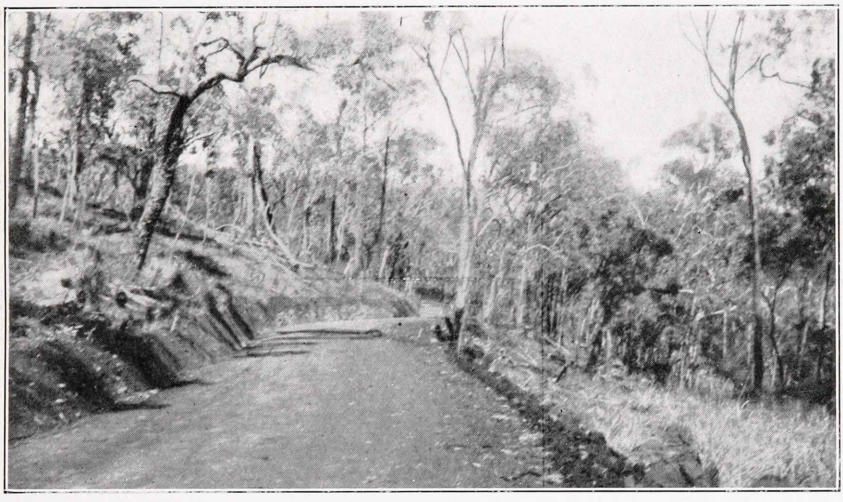
Expenditure of Government Funds has also been incurred in the provision of water facilities for settlers and in advances by the Agricultural Bank for the assistance of settlers. Both these matters are referred to, in detail, in later sections of the Report. Expenditure to 31st March, 1929, under these heads, is as follows :—

Water facilities	£73,760
Agricultural Bank advances	£88,131

NEW ROADS ON THE SETTLEMENT.



Section of road between Monto and Splinter Creek, Upper Burnett.



Another view of road, Monto to Splinter Creek, Upper Burnett.

Road through scrub country near Thangool, Callide Valley.

"As part of the settlement scheme, the Department undertook to construct, free of cost to the Local Authorities, the necessary roads and bridges to give pioneer access to each holding. The present standard of work which is done with the aid of modern plant is quite satisfactory, and settlers are being provided with reasonably good roads. The bridges throughout the area, constructed by the Lands Department, are first-class structures."—Page 8.

Face Page 8.]

This expenditure, however, stands in quite a different category to the other expenditure quoted above. In each instance the money advanced is in the nature of a loan to the settler, and ordinarily should be repaid by him with interest over a period of years. Excepting, therefore, the amount spent on "duffer" bores, or otherwise written off or lost in the provision of water facilities, and the amount lost through default of the tenants in observing the covenants of their Agricultural Bank mortgages, the above expenditure will be repaid to the Government. It should not, therefore, be debited to the initial cost of the settlement. Reference to the section of the Report dealing with water facilities will show, however, that considerable losses will be incurred under this head.

VIII.— Summary of special expenditure.

Summarising the expenditure that may fairly be debited to the initial cost of the settlement, we have the following:—

	£
Compensation for Land Resumptions	233,044
Construction of Railways	1,715,697
Construction of Roads and Bridges	78,523
Total	£2,027,264

Expenditure on railways, roads, and bridges is still continuing.

IX.— Costly nature of modern settlement schemes.

It will be seen from the above figures that modern settlement schemes are costly undertakings. If railways have to be pushed out ahead of settlement, if roads and bridges have to be constructed, and other Governmental aid granted to settlers, the burden of all this expenditure must, until the new settlement becomes productive, be carried by the general community.

In the present instance the expenditure amounts to £2,027,264. For that sum 1,108 persons have already been settled on the area, and the potential settlement capacity of the remaining land, on sound lines, is about 400 settlers. By the time the scheme is completed, therefore, considering that further expenditure has yet to be made on railways and roads, the cost will not be less than £1,500 per settler.

Some surprise may be occasioned by our estimate of 1,500 settlers for the whole area, because of the fact that official estimates in the past have exceeded this figure. However, the facts and reasons on which our estimate is based are fully disclosed in the following pages. Briefly, it may be said the reduced number is mainly due to the fact that larger areas than were originally contemplated are needed to effect sound and progressive settlement.

X.— The old method and the new.

The large expenditure that has been incurred illustrates, in a striking way, the difference between old and new settlement schemes.

In the early days of settlement a family would settle on the land, produce almost all its own requirements, and earn in actual money a very small income, which would be expended on articles which the farm could not produce. To live, rather than to earn or produce for the use

of others, was the dominating purpose. Now all this has changed. The modern view is that, unless the income received from the products of the farm can approximate the money that would be earned from similar energies elsewhere, there is no inducement to settle on the land.

In former days communities established themselves by years of arduous pioneering work with little outside assistance, and railways were provided only after the settlers had demonstrated the wealth productivity of their lands, and their capacity to provide the railways with considerable business. Now the position is reversed; public expenditure goes first and settlement follows. Such public expenditure must necessarily be unproductive for a few years.

XI.—Settlement measures up to standard prescribed by British Economic Mission.

In dealing with settlement schemes the British Economic Mission, in its Report dated 7th January, 1929 (page 6), pointed out that such schemes, financed out of loan moneys, should be self supporting within a reasonable measure of time. The members of the Mission went on to say, "By this we mean that within such measure of time they should, either directly, or indirectly through the increased taxable capacity of the community and the enhanced value and price of Government-owned land attributable to the development schemes, provide at least their own working costs, interest on the loan capital invested in them, and a sinking fund sufficient to provide for its repayment when it falls due."

Judged on that basis, the Upper Burnett and Callide Valley Settlement Scheme may be regarded as a sound State investment. We think that, indirectly, it will return interest and redemption manifold.

XII.—The scheme as measured in money

In the first place, on the lowest estimate that is possible, the land has increased in value considerably more than the total cost of the railways and roads that have developed it. We are not, however, impressed by this factor because the State will not receive this increased value. The land is settled on the Perpetual Leasehold system, the annual rent payable being only 1½ per cent. of its capital value. The Lands revenue from the settlement at the present time amounts to £15,934 per annum, and although with increased settlement this revenue will be augmented, it will not be substantially increased owing to the fact that we are making a number of recommendations for adjustments in rents.

Even if the Government allow settlers to convert to freehold, the purchasing price of the land, free from interest, will be spread over a period of from twenty to thirty years, and consequently there will not be much material gain to the Government from a revenue standpoint.

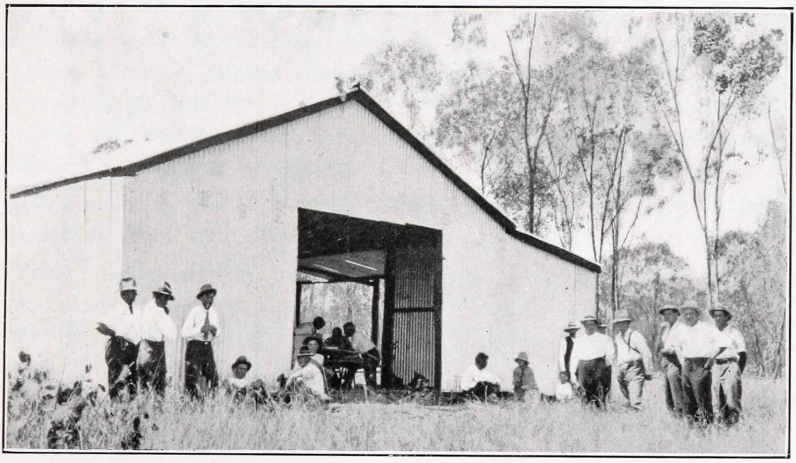
Much more important, in our opinion, than increased land values, is the wealth productivity of the land. When fully settled on the lines of our recommendations, we estimate the settlement will comprise 1,500 mixed farmers, dairymen, and graziers, and the annual production from the settlement will then probably exceed in value one million pounds sterling.

All the State expenditure, therefore, that has been incurred in the scheme must be considered in relation to the many advantages to the community of this increased annual production.

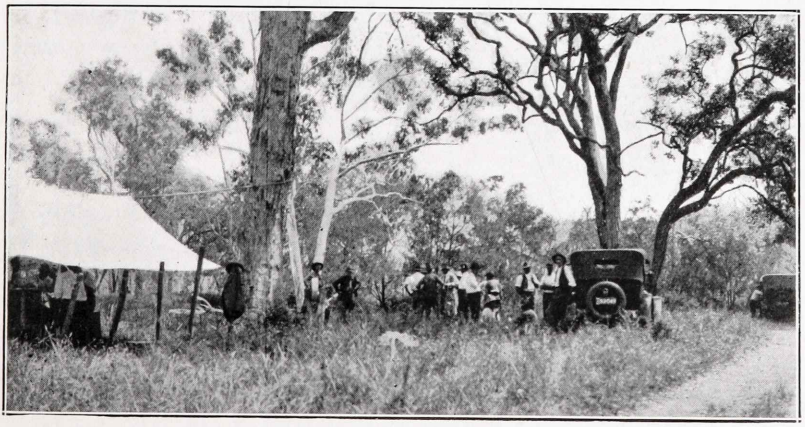
LAND ADMINISTRATION BOARD AT WORK.

Proceedings everywhere marked by absence of formality.

Board sitting in Railway Waiting Room at Abercorn, and group of selectors waiting to present their cases.



Board taking evidence in blacksmith's shed, Mulgeldie.



Board hearing selectors under tent fly at Waratah.

"The individual witnesses were examined in private. . . . ."

"We have found, from experience, that though an economic investigation conducted in public may be picturesque, it is of very little real value. Witnesses will not disclose, in public, those intimate financial details of their operations, or bedrock facts, without which any attempt at an economic investigation becomes futile. Our aim, therefore, was to set the witnesses at ease, assure them that their evidence would be regarded as confidential, and then closely examine them on all material matters. In the result the witnesses gave us all the information we desired."—Page 12.

But there is another and still more important way in which the matter may be measured—in persons rather than in money. Amongst the settlers many are to be found with large families. A number of the witnesses who gave evidence before us had families ranging from six to ten children. Allowing, however, for average families of three children, the Upper Burnett and Callide lands will directly support 7,500 people. XIII.—The scheme as measured in population.

Now for every £1,000,000 of wealth produced from the land, it may be said, as a wide generalisation, that about one-third will find its way into the pockets of the producers, while two-thirds, as costs of production and general expenses, will be distributed amongst the community. Therefore, besides the 7,500 people maintained on the land, the distributed wealth will support a further 15,000 people, making 22,500 people all told.

Such is the value of this settlement scheme to Queensland.

Much is heard from time to time of progressive settlement schemes in Western Australia. It is surprising how ready some people are to make comparisons to the detriment of Queensland, while lacking even elementary knowledge of the subject being dealt with. For the information of those who like comparisons we reproduce in Appendix A an analysis of group settlements in Western Australia which appeared in the *London Times* of the 14th September last. It shows that expenditure on group settlements in that State has exceeded £4,000 per head, and that, even after such expenditure, the prospects of the settlers are still uncertain. XIV.—Settlement failures in Western Australia

No comment by us is needed, except to say that we have verified this information from official sources.

Having discussed the matter in this general way, we will now proceed to give particulars of our Inquiry and to state in detail the conclusions we have reached regarding the future administration of the Upper Burnett and Callide Valley settlement.

PROCEEDINGS OF BOARD.

The Board opened its inquiry at Mundubbera on Thursday, 28th February last. Subsequently sittings were held at Eidsvold on the 2nd March, at Abercorn 4th March, Mulgeldie 5th, Monto 6th and 7th, Kalpowar 8th, Waratah 9th, Biloela 11th and 12th, Thangool 13th, Jambin 14th, Goovigen 15th March, and later at Brisbane. I.—Sittings held.

In addition to hearing evidence, numerous inspections of holdings, vacant lands, and roads were made.

Altogether 339 witnesses were examined. Their notes of evidence, covering 664 pages of typewritten matter, have been bound into a separate volume and forwarded to the Hon. the Minister for Lands for his information. All witnesses were given an assurance that the financial details of their evidence would be regarded as confidential. II.—Witnesses examined.

An alphabetical list of the witnesses is given in Appendix C.

In attending sittings and in making inspections the Board travelled 1,143 miles by motor-car. III.—Miles travelled.

IV.—Proceedings in private.

The individual witnesses were examined in private. If the witnesses desired anyone else to be present, their wishes were respected; otherwise the Inquiry was not open to the public.

We have found, from experience, that though an economic investigation conducted in public may be picturesque, it is of very little real value. Witnesses will not disclose, in public, those intimate financial details of their operations, or bedrock facts, without which any attempt at an economic investigation becomes futile. Our aim, therefore, was to set the witnesses at ease, assure them that their evidence would be regarded as confidential, and then closely examine them on all material matters. In the result the witnesses gave us all the information we desired.

THE MUNDUBBERA SETTLEMENT.

I.—Relevancy of the Mundubbera lands.

As already stated, our Inquiry opened at Mundubbera. This district is situated near the Upper Burnett district, and comprises a belt of forest and scrub country somewhat similar to the country of the Upper Burnett, and of approximately equal rainfall. The good lands in the latter area are, however, much more extensive than those of the Mundubbera district, which also has the disadvantage of pear infestation.

The Mundubbera lands were settled in a virgin condition about fifteen years ago without special Governmental aid other than the provision of pioneer access. The settlement is now well established and is prosperous. It seemed to us, therefore, that if the Mundubbera settlers would take us into their confidence, tell us the difficulties they had encountered, and the obstacles they had overcome, and give us details of the working of their holdings and of their financial position, our task in forming an accurate judgment on the soundness of the Upper Burnett project would be very much lightened. That is why the Inquiry was opened at Mundubbera.

II.—Acknowledgment of public service rendered by witnesses.

Twelve witnesses submitted themselves for examination in response to general invitations issued by the Board. A number of these witnesses were original settlers in the Mundubbera and adjacent districts. They were in occupation of different classes of country, and some came considerable distances to be present at the Inquiry. Their names are included in Appendix C.

We wish to acknowledge the sense of public service which prompted the attendance of these settlers to assist the Board. The settlers themselves had nothing to gain. The terms and conditions of their lands were not under review. They could hope for nothing from the Inquiry. Yet with obvious goodwill towards the administration they readily came forward to give the Board the benefit of their knowledge and experience.

Such disinterested co-operation is gratifying and worthy of acknowledgment.

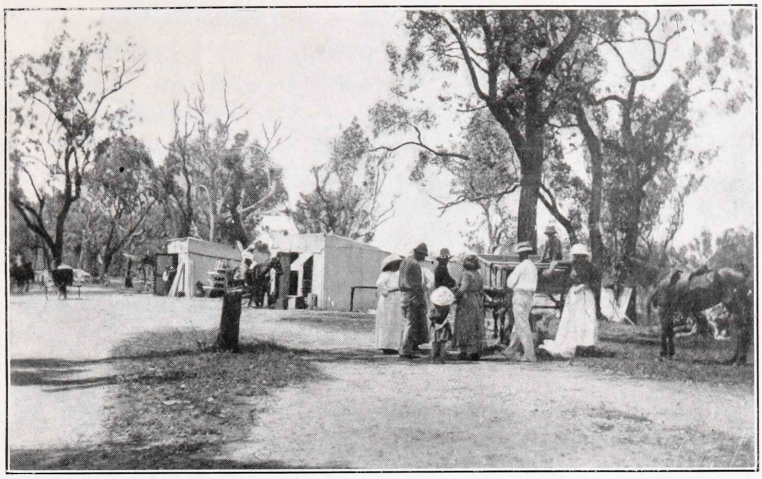
III.—Facts established by Mundubbera evidence.

The evidence at Mundubbera, and our inspections and inquiries in the locality, establish the following:—

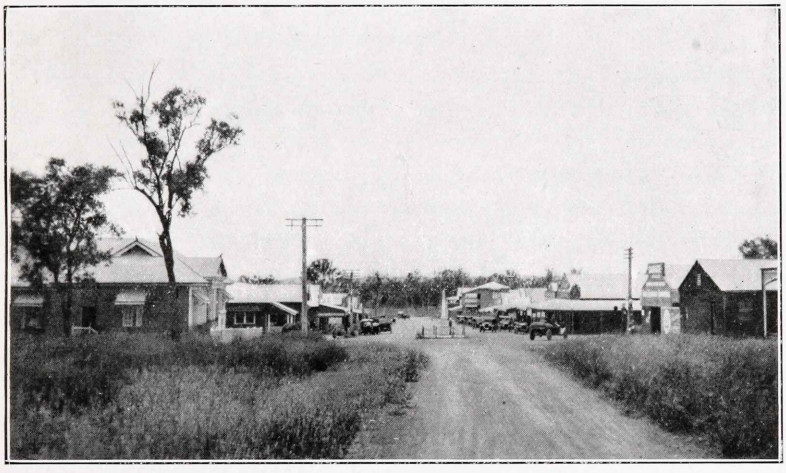
(1) When originally settled, the area around Mundubbera allotted to each selector was too small. Most of the settlers started out without any monetary capital whatever and

THE GROWTH OF MUNDUBBERA.

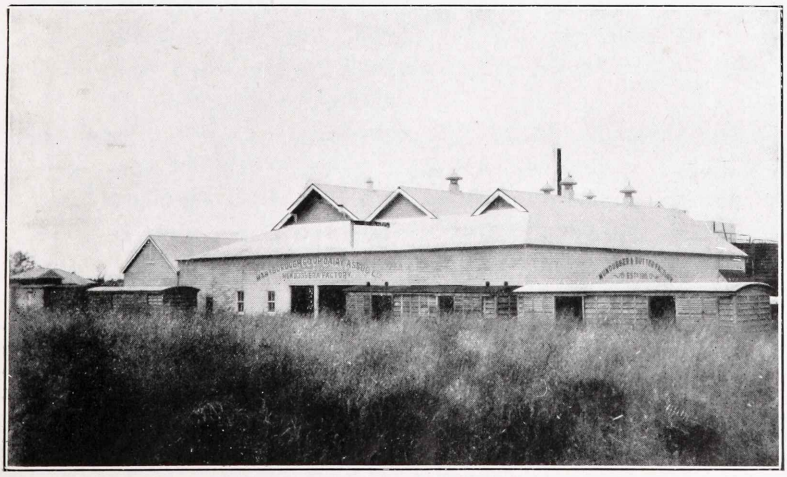
Successful land settlement and industrial progress are closely allied.



The main street, Mundubbera, 1914.



Mundubbera to-day.



Mundubbera Butter Factory.

"What Mundubbera has done, several centres throughout the Upper Burnett and Callide Valley may do better."—Page 14.

Face Page 12.]

many of them failed to succeed. Gradually, however, the size of holdings increased by aggregation, and now the settlement is established on a sound and prosperous basis. The selections are held as Agricultural Farms, on the freeholding system, as distinct from Perpetual Leases.

The original subdivision of the land was in areas of from 160 acres upwards. Taking an average it may be said that the areas should have been about doubled. A good living can be made from 300 acres of first-class scrub land, or from 500 acres of good forest land, with, say, 50 acres to 100 acres of cultivable land thereon.

Most of the successful farmers to-day hold two or three of the original blocks.

(2) The original purchasing prices placed on the land by the Crown were somewhat high. They have, however, since been adjusted and reduced by the Prickly-pear Land Commission, under whose jurisdiction the land now is, and settlers seem quite satisfied and contented with the treatment they have received.

(3) In the Mundubbera District, both the scrub and forest land is good sound, healthy, dairying country. There is also a considerable extent of first-class agricultural land.

(4) In the case of scrub dairy farms it is desirable, and in the case of forest farms essential, that cultivation be maintained for feeding the milking cows in dry times and during the winter months, when the grasses have lost their succulence. Artificial grasses on scrub country, of course, keep succulent longer than natural grasses on forest land.

(5) To get the best results, a dairyman on forest country should have under cultivation an area of about one acre per milking cow. The crops grown in the district for cow feed include lucerne, cowpea, maize, soudan grass, and imphee.

Instead of cutting and chaffing the feed, many farmers merely graze their milkers on the cultivation for a short time daily, which, of course, saves labour, but a larger area of cultivation is required.

(6) From a dairying standpoint, the district compares favourably with the best dairying districts in the State. Witnesses who appeared before us had previous experience on the land, on the Downs, at Nerang, Lowood, Laidley, and Murgon. The concensus of opinion was that, with the aid of cultivation, a dairy herd in the Mundubbera district would return profits as good as in any of the other districts mentioned.

(7) A few high-class pedigree milking herds are maintained in the district. In particular, the Illawarra stud of Messrs. Spoor Bros. has won many prizes at Brisbane Shows and other Agricultural Shows throughout Queensland.

(8) The returns from dairying vary according to the grade of cow and the seasons. The highest return from ordinary dairy cows mentioned in evidence was 35s. per cow per month; the lowest was 12s. 6d. per cow per month. From the evidence we are satisfied that ordinary good grade dairy cows, with the aid of cultivated fodders, will return about £1 per cow per month throughout the year; that is a dairy farmer maintaining an average milking herd of 30 cows will receive a gross return from cream of about £360 per annum. The capital invested in such dairy farm, including dry cows and young stock, dwelling, improvements, and plant, would be about £1,750, exclusive of the value of the land.

(9) A large co-operative butter factory is established at Mundubbera.

During the twelve months, 1st January, 1928, to 31st December, 1928, 942 tons of butter were manufactured at this factory. The total amount paid to suppliers for the twelve months was £134,703. Of this, the largest monthly amount was £16,966 for the month of January, and the smallest £5,883 for the month of June last. The average number of suppliers was 558. The returns, therefore, equal an average of £242 per supplier per annum. This return would be higher if confined to ordinary dairymen, excluding those suppliers who run only a few cows as a side line. Details are given in Appendix B.

(10) The chief crops grown in the district for market are cotton, maize, and broom millet.

(11) The railway returns for twelve months, 1st January, 1928, to 31st December, 1928, show that 1,885 tons of produce were despatched from Mundubbera, while the freight collected by the Railway Department on goods and live stock despatched amounted to £7,487. The inwards freight amounted to £8,559 for the same period.

IV.—What Mundubbera has done, the Upper Burnett may do better.

It will be clear from the above facts and figures that Mundubbera is now a prosperous mixed farming area. All qualities making for success in this district are present in greater measure in the lands of the Upper Burnett and Callide Valley. What Mundubbera has done, therefore, several centres throughout the Upper Burnett and Callide Valley may do better.

UPPER BURNETT AND CALLIDE VALLEY LANDS.

I.—Four determining factors in land settlement.

The four chief factors which determine the success or otherwise of a settlement scheme are:—

(1) Quality and suitableness of the land and climate.

(2) Character and suitableness of the settlers.

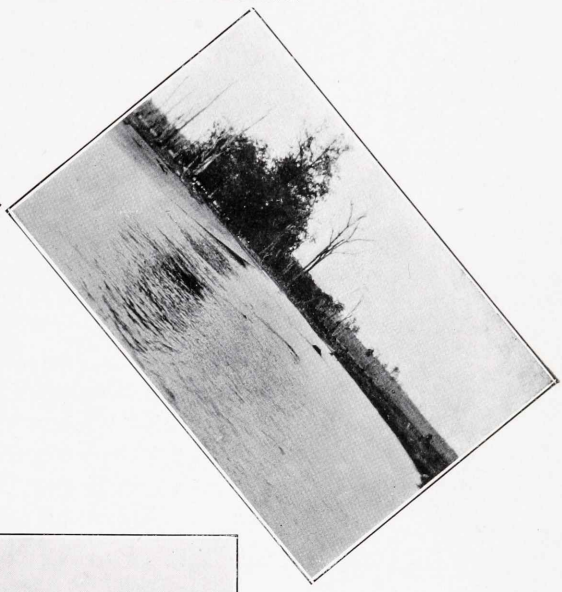
(3) Markets for the products.

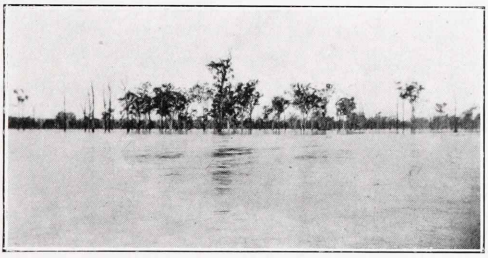
(4) General administration.

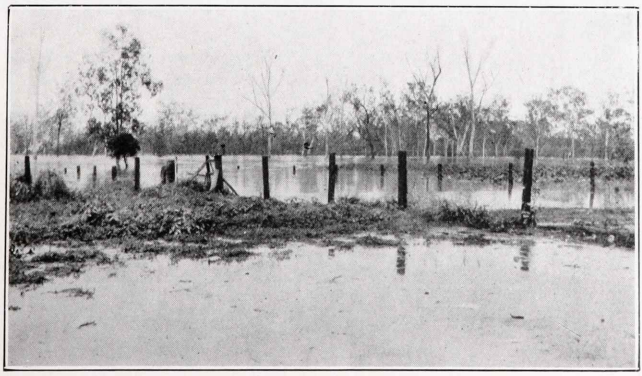
We will deal with each of these matters in turn.

THE MENACE OF FLOODS ON LOW-LYING LANDS.

Many of the flats throughout the Upper Burnett and Callide Valley are inundated for short periods by flood waters after heavy rains. These photos. were taken in different parts of the settlement.







"Generally, settlers have much more to fear from dry conditions than from excessive rains, unless they take steps to protect themselves by storing fodder. In average years the great bulk of the rich agricultural land in the district may be cultivated without losses by flood."—Page 16.

Face Page 14.]

QUALITY AND SUITABLENESS OF THE LAND AND CLIMATE.

I.—Land quite suitable for closer settlement.

We have already expressed the opinion that the Upper Burnett and Callide Valley lands are eminently adapted for a successful closer settlement scheme.

Rich belts of country exist which bear comparison with anything to be found in other parts of Queensland, and, if closer settlement could not succeed on such an area, the outlook for increased primary production in Queensland would be dismal indeed.

II.—Prospects of districts are favourable compared with other closer settlement districts.

But it must be remembered that the country is, or a few years ago was, largely virgin land, and, therefore, many years of concentrated effort will be needed to put this settlement in the same developed and established condition as the older closer settled districts of the State, such as for instance the South Coast, the Brisbane Valley, or the Wondai-Kingaroy areas.

The progress that has already been made, and the towns that have been established throughout the area, speak well for the energy and enterprise of the people, and, in the course of time, there is no reason to doubt that this great new district will compare favourably in prosperity with the other districts mentioned.

III.—Climate and rainfall.

The climate of the settlement is invigorating and healthy. Sheltered from the humidity of the coast by the Burnett and Dawes Ranges, the winds that come in from the Pacific are dry and keen. The winters are not unduly severe. The average annual rainfall, taken from official records at places scattered throughout the area, is about 29 inches.

We are indebted to Mr. Joseph Ball, of Rosebank, Kalpowar, for a valuable private record over a period of 21 years, from 1908 to 1928 inclusive, of the rainfall at Rosebank, which is situated about 18 miles north-east of Monto. This record shows the daily and monthly rainfall throughout the whole of this period. The average is 33 inches. It will be noted that this average is greater than the average rainfall for the whole settlement, which is evidently accounted for by the nearness of the country to the Dawes Range.

So valuable do we consider this record to be that, for the information of settlers throughout the area, we have reproduced it in full in Appendix D.

IV.—Floods and dry seasons.

The Upper Burnett and Callide Valley are served by the Burnett River, and many large creeks. On the southern watershed there are Splinter, Three Moon, Monal, Boogolgopal, Cattle, Trevethan, Small's, and other creeks, and the Rawbelle or Nogo River. On the northern watershed the creeks are Grevillea, Kariboe, Kroombit, Callide, and Bell. These creeks drain an extensive area of country, and in heavy rains the water overflows the banks and inundates the adjacent flat country. In places there is a considerable current.

Reference to the rainfall record abovementioned will show that the years 1927 and 1928, and the early part of the current year, were exceptionally wet. In consequence floods were more severe than usual, and much damage was done on the rich alluvial flats adjacent to the creeks. Crops were damaged or destroyed, and fences were pushed over by debris brought down by flood waters. A number of settlers complained that their crops had been destroyed in three successive years.

The set back that such a happening would be to a new settler can readily be imagined. In fact, so disappointed were some that they have expressed their intention of not putting this flooded country into cultivation again.

We think that, generally, settlers have much more to fear from dry conditions than from excessive rains, unless they take steps to protect themselves by storing fodder. In average years the great bulk of the rich agricultural land in the district may be cultivated without losses by flood.

CHARACTER AND SUITABLENESS OF SETTLERS.

I.—Settlers are a good type.

Of the 1,108 settlers who have been allotted portions, we met and discussed settlement problems with 339. Not more than five per cent. of this number are unsuited for facing the pioneering conditions of a new settlement. On the other hand, at each place visited we saw a number of hard-working progressive men, who are determined to succeed, and whose accomplishments to date are very creditable. These men will be a stabilising influence in the places where they are settled. The scheme will not fail for want of suitableness of the settlers.

MARKETS AND PRICES FOR PRODUCTS.

I.—Variety of crops.

The land is capable of producing many and varied products such as different kinds of crops, cream, pigs, and fat stock. For the present cream and cotton are the principal products.

II.—Butter and cotton are chief products.

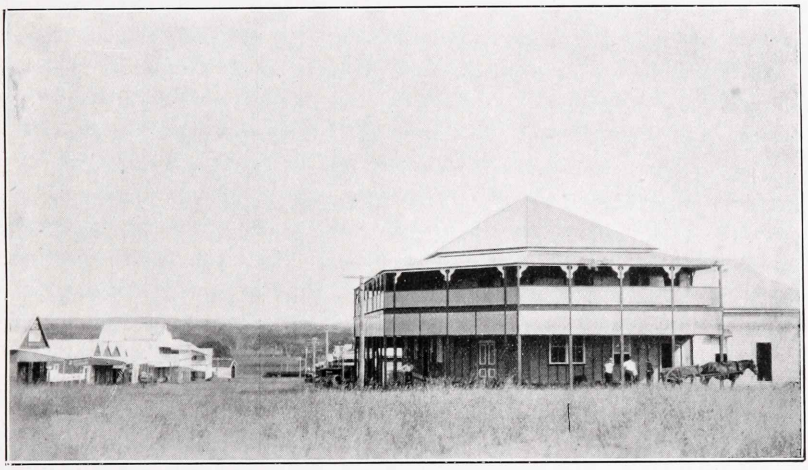
The problems of marketing the products from the area are no different from the general problems of marketing which face all primary production in the State. They need not, therefore, be specifically referred to in this Report.

As already mentioned the two chief products are butter and cotton. Butter is protected by the "Patterson scheme," under which the Australian consumer pays more for the butter he uses than World's parity. The tax the consumer thus pays equals about 4½d. per lb. on all butter exported.

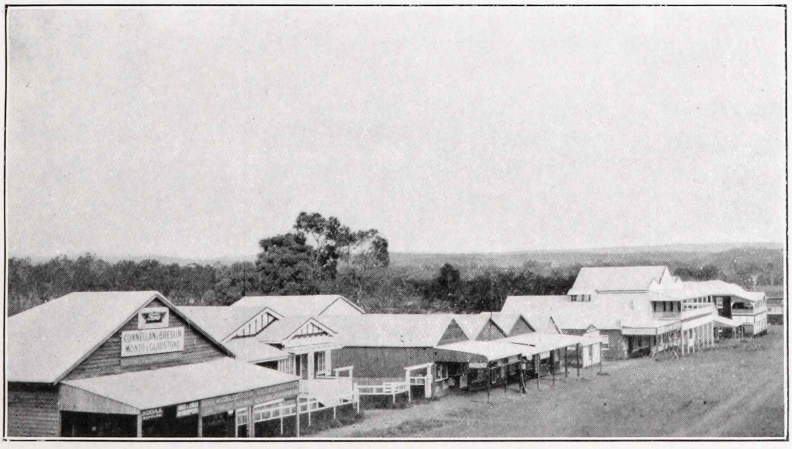
The dairying industry is conducted not only in Queensland but in all the States of Australia; its operations are well known to Government Authorities, both State and Federal, and there is nothing exceptional in this district, regarding markets and prices, to which attention should be drawn.

THE FOUNDATION OF MONTO.

Site of Monto, 1924, at the commencement of settlement.



Monto to-day.



The main street, Monto.

Less than five years old, Monto is a rising township, in picturesque country in the heart of the Upper Burnett. Surrounded by good dairying and agricultural land, Monto is destined to become the capital of the Upper Burnett and a country township of considerable importance.

Face Page 16.]

III.—Cotton production is going backwards.

With cotton, however, the position is different. The Upper Burnett and Callide Valley and neighbouring districts are specially suited for the production of cotton. In fact they are the chief cotton producing centres of Queensland and Australia.

The area under cultivation is, however, going backwards. Although definite figures for the 1929 season are not available, the evidence clearly establishes that, throughout these districts, the area of cotton at present being harvested is less than the preceding year, and the prospects are that smaller areas will be put under crop during the current year. In the circumstances we will give a brief outline of the Queensland Cotton Industry and explain the reasons for the downward tendency.

IV.—Early guaranteed prices for cotton.

In the year 1919, the State Government, in order to encourage the growing of cotton in Queensland, instituted a system of guaranteed prices, definite intimation being given that the period of guarantee would be for five years, the rates of payment to be varied according to circumstances from time to time. During the first two years of the guarantee, a price of 5½d. per lb. was paid for all seed cotton harvested. During the subsequent years the maximum price ranged from 5½d. to 5d., and variations were made in the price according to the grade and staple length of the seed cotton. Up to and including the year 1923, the State Government had incurred a loss of £68,930 as a result of the guaranteed prices.

From and including the year 1924, the Commonwealth Government agreed to share in the losses involved by the guarantee. The last year of guaranteed prices was 1926, the price for best grade being fixed at 5d. per lb. maximum, but in addition the Queensland Government paid ½d. per lb. as a special grant to growers, thus bringing the price for the best grade of cotton to 5½d. per lb.

V.—The Commonwealth Cotton Bounty Act.

In 1926 the Commonwealth Cotton Bounty Act was passed. It provides for a direct bounty on seed cotton of 1½d. per lb. on higher grades, and ¾d. per lb. on lower grades. The Act also provides for a bounty on cotton yarn made in Australia subject to at least 50 per cent. of Australian cotton being used in the manufacture of the yarn. The bounties are payable for five years from 16th August, 1926.

VI.—Area and value of cotton crop.

The following figures, for which we are indebted to the Manager of the Queensland Cotton Board, indicate the fluctuations in cotton growing in Queensland, and the prices obtained by growers :—

Year.	Approximate Area under Crop.	Weight.	Average price per lb. (approx. only).	Total value of crop (on guaranteed or bounty prices).
	Acres.	Lb.	*d.*	£
1920	166	45,581	5½	1,038
1921	1,967	922,778	5½	21,145
1922	8,176	3,878,673	5½	88,466
1923	28,695	11,769,502	5½	264,399
1924	35,373	15,179,046	5	314,775
1925	40,000	18,296,507	4½	338,187
1926	36,000	9,007,148	*5	*188,989
1927	18,000	7,054,951	5	150,000
1928	24,970	12,218,036	4½	228,000

* Includes State grant of ½d. per lb.

It will be noticed that since 1924, when the payment to growers was made dependent on the grade of cotton produced, the proportion of low grade cotton harvested somewhat affected the average price per lb. received by the growers.

VII.—Amount of Commonwealth bounties paid.

The amount of Commonwealth bounty for the year 1927 was approximately £43,000, and for the year 1928, £76,000. This equals a bounty of approximately 40 per cent. and 50 per cent. respectively on the value of the crop. The protection already granted is, therefore, considerable, though the evidence before us clearly establishes that it is insufficient if the industry is to survive.

VIII.—Is the cotton industry worth establishing?

What is the value of the cotton industry to Queensland, and is it worth establishing as an integral part of the life of the State? The Cotton Board answers this query with the following comment:—

> "Already this young industry is playing an important part in the life of the community. With the production of slightly over 12,000,000 lb. of seed cotton in the 1928 season, more than 4,000 pickers were employed, exclusive of family labour. The wages bill is a big one. The payment to the railways for transport charges was approximately £8,000. Further moneys have been paid in connection with the handling of lint for export, and the ginneries and oil mills of the British Australian Cotton Association employed during the season about 120 employees. In addition, this company pays away other large sums of money for cartage, handling, and shipping charges on cake and oil. In the face of these facts it is easy to visualise the very great influence for good which an extensive cotton industry would have on the community in general.
>
> A quadrupling of the present crop is possible within a very short space of time. This increase in the crop, however, can only be brought about by sales of lint to Australian spinners. This would mean an additional annual income of £600,000. The effect of this increased wealth upon the relieving of unemployment and upon the important national questions of development and migration is difficult to measure.
>
> If the industry is worth establishing, and this we contend is unquestionable, then due regard must be had to the fact that adequate assistance is necessary during the experimental stage. When one has regard to the fact that the American industry has been in existence 100 years, it is obvious that the Australian industry, which has only been in existence a few short years, has not yet emerged from the experimental stage."

IX.—Stabilisation of prices essential.

For the Callide Valley the matter of the survival of the cotton industry is of great importance. The foundation of that district, much more so than the Upper Burnett, was based on the growing of cotton. Cotton originally attracted most of the settlers to the land. Cotton kept them going. Cotton established the towns of Biloela and Thangool. If, therefore, unsatisfactory prices now compel the abandonment or considerable curtailment of the industry, a serious blow will be dealt the district. Everywhere it was noticeable that there is almost a scramble on the part of cotton growers, who have or can obtain finance, to go in for dairying because of the greater measure of stability that pertains to the dairying industry.

Cotton growing, as an industry, must surely and quickly decline unless means can be found to stabilise prices, and ensure a reasonable return to the grower.

X.—Analysis of production costs.

Last season's average price (including bounty) of 4½d. per lb. for raw cotton does not pay the grower for an average crop. Although there have been instances of cotton crops yielding up to 1,400 lb. to the acre, the average production, from all evidence obtained by us, is about one bale (480 lb.) per acre.

The following schedule giving costs of production for 100 acres of cotton, yielding one bale (480 lb.) per acre, shows that a return of 4½d. per lb. is inadequate :—

COTTON GROWING.

Capital Invested.

	£	s.	d.
Improvements—			
200 acres cleared and broken	600	0	0
280 chains of fencing at 10s.	140	0	0
House	500	0	0
Machine sheds	50	0	0
Cotton shed	50	0	0
Water facility	250	0	0
Total value of improvements	£1,590	0	0
Machinery and Equipment—			
Fordson tractor	210	0	0
Two horses and harness	40	0	0
3-furrow tractor plough	74	0	0
6-section harrow	14	0	0
Cotton planter and scarifier	28	0	0
One Ford ton truck	210	0	0
	£576	0	0
Total capital invested	£2,166	0	0

Costs of Cultivation.

Cost per acre (ploughing) :—Power, kerosene, benzine, 7s. ; lubricating oil, 1s.; repairs, 2s.			
Cost of ploughing 100 acres	50	0	0
Two harrowings at 2s. per acre	10	0	0
Planting, 2s. 6d. per acre	12	10	0
Cotton seed, 12 lb. per acre	5	0	0
Three scarifyings at 4s. 6d. per acre	22	10	0
Thinning out, 7s. per acre	35	0	0
Total cost of cultivating 100 acres	£135	0	0

Gross Returns from 100 Acres.

Estimated yield, 480 lb. seed cotton per acre at 4½d. per lb.	900	0	0
Costs.	£		
Picking at 2d. per lb.	400		
Cultivation costs	135		
	535	0	0
Net returns from 100 acres cotton—approximately 1⅘d. per lb.	£365	0	0

Overhead Charges.

Interest on capital at 6½ per cent.	140	15	10
Depreciation on structural improvements, 5 per cent.	49	10	0
Depreciation on machinery, 10 per cent.	57	12	0
	£247	17	10
Net returns from cotton	365	0	0
Overhead charges	247	17	10
Net profit	£117	2	2

=·585d. per lb., or £1 3s. 5d. per acre.

If means could be found to increase the return by 1d. per lb., making an average of about 5½d. per lb., which was the price originally guaranteed by the Queensland Government, the area under cultivation would be largely increased, and the industry would have unlimited possibilities of expansion in this fertile tract of country. At that price, if only an average crop were obtained, the farmer would receive a small, but not insignificant, profit, while, on the other hand, if he were fortunate enough to secure a good crop of two bales to the acre, he would receive a handsome return for his labour.

XI.—Comparison of picking costs—Queensland and America.

Analysing the production costs quoted above it will be found that the heaviest item is that for picking the cotton. This costs 2d. per lb. In the United States of America, the chief cotton producing centre in the world, the cost of harvesting seed cotton is only slightly over ½d. per lb. How, then, can Queensland compete without heavy protection ?

Doubtless this low American cost of harvesting is the chief reason why inventive genius has not been invoked to provide a satisfactory mechanical picker. While a mechanical picker is not needed in the cotton belt of America, where low wages and deplorable industrial conditions prevail, such a machine in Queensland, if it enabled cotton to be harvested at, say 1d. per lb., might well be the salvation of the industry.

XII.—Commonwealth Government now considering action.

Various proposals have been submitted to the Commonwealth Government by the Queensland Cotton Board and by cotton manufacturers to help the growing and manufacturing industries over the difficulties with which they are faced, due to competition from overseas.

These proposals may be summarised as follows :—

(*a*) Duty on raw cotton and linters to be imposed so as to ensure the purchase of the Australian article by spinners.

(*b*) Deferred duty on cotton yarn to be made effective.

(*c*) Duty on cotton wadding and oils to be increased.

(*d*) Bounty to be given on percentage yarn.

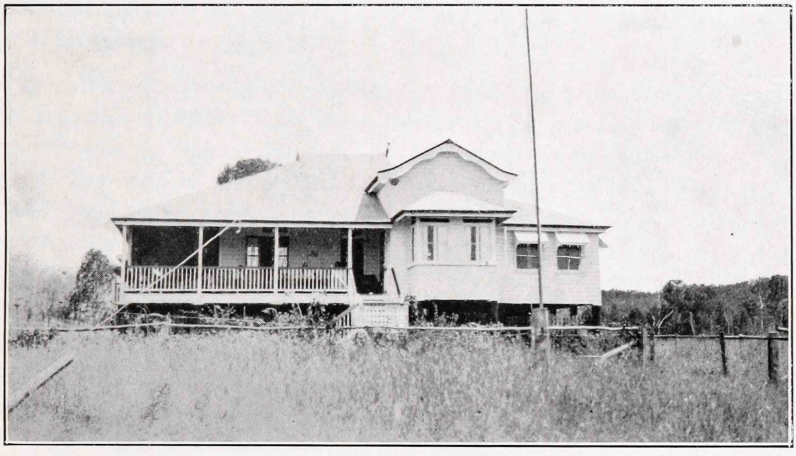
(*e*) Bounty on cotton yarn to be increased.

The Commonwealth Tariff Board has inquired into these matters, and has reported thereon to the Commonwealth Government, which now has them under consideration.

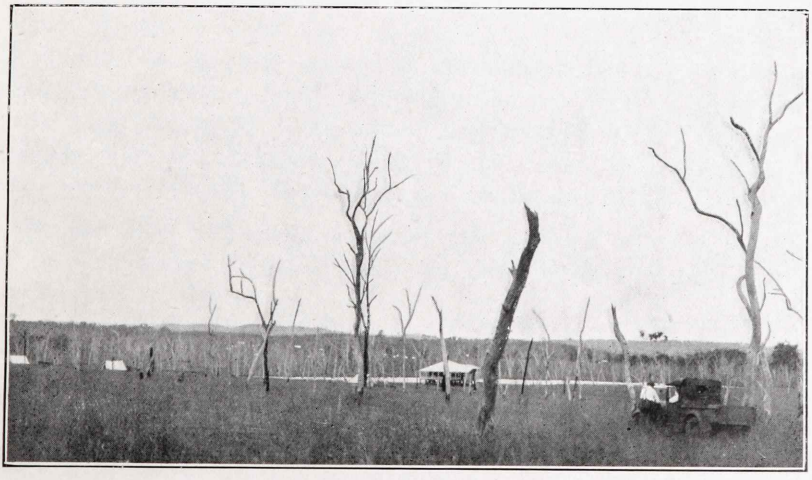
Unless a decision is given immediately, which will indicate to the growers that they will receive more than an average of 4½d. per lb. for their seed cotton, there will be a marked shrinkage in the acreage of cotton planted this season.

GLIMPSES OF THE UPPER BURNETT.

A field of cotton, Waratah.



" Kerwee," a residence on the settlement.



The start of a new township on the Many Peaks-Monto Line, 13 miles north-east from Monto.
The first building erected is the railway station-master's house.

Face Page 20.]

GENERAL ADMINISTRATION.

Matters of general administration in regard to the Settlement will be discussed under the following main headings :— I.—Matters discussed.

(1) Sound Settlement Areas.
(2) Additional Areas for Settlers.
(3) Capital Values and Rents.
(4) Freehold Tenure *v.* Perpetual Lease.
(5) Water Facilities for Settlers.
(6) Roads and Bridges.
(7) Operations of the Agricultural Bank.
(8) Immigration Settlement.
(9) Prickly-pear Land.
(10) Departmental Organisation.

SOUND SETTLEMENT AREAS.

In determining sound settlement areas it is first necessary to have regard to the purpose for which the land will be used. This land may be used for agriculture or dairying. I.—Areas should be determined on dairying basis.

To carry on agriculture successfully, assuming there is a satisfactory market, requires a smaller area than does dairying, but we think it would be very unwise to found this settlement on an agricultural basis only. Not only does agriculture require the best quality of land and assured rains, but the settler must wait a whole year for his returns. Moreover, the future of cotton is not certain, and the market for other agricultural products fluctuates enormously.

Dairying, on the other hand, can be successfully conducted on indifferent land, so long as a reasonable area of cultivation is available. It gives a regular monthly return; it has a stabilised market, and insurance against dry seasons can be provided by the conservation of fodder. We think that the areas of this settlement should be determined on a dairying basis, rather than force the settler into an inevitable gamble on agriculture, dependent as it is on seasons, markets, and prices.

Considered in this way we are of the opinion that, on an average, the areas are too small. Some of the portions are large enough, while others are quite inadequate to provide a reasonable living for the settler. The mistake that was originally made in the Mundubbera subdivisions has been repeated, though, fortunately, not to the same extent. II.—Many of existing areas are too small.

For successful settlement some of the portions will need to be doubled in area, others increased by 50 per cent., while a number will be quite satisfactory as they are.

A settler should, in our opinion, have such an area as will not merely provide for his present requirements, but give him as time passes some opportunity of augmenting his income by the intelligent use of his land. A bare living is not a sufficient inducement to settle on the land, nor does it give much incentive for developing the land to the utmost.

III.—The factor of family labour.

Another factor to be weighed in determining areas is that the farm income always represents the labour of at least two persons. Often it represents the labour of a large family.

The hours of work also are longer than in any regulated industrial calling, and usually average 10 or 12 hours per day. And although labour may be lightened by the use of machinery such as tractors, milking machines, power separators, and the like, the work of a successful dairy farm must always entail long hours. Neither is there any break nor holidays; the work is continuous the whole year round. Indeed dairying has been facetiously described as the nearest known approach to perpetual motion.

On the other hand the compensations for the effort put into the building up of a successful farm are many—Natural life, monthly income, independence, cheaper living on account of using the products from the farm, and augmented assets in old age owing to the land increasing in value as years pass by, are the most obvious advantages that accrue.

IV.—A "forty-five cow standard" recommended.

For a new settlement such as this we are of the opinion that each settler should have sufficient land to permit him to have at least 30 milkers in profit throughout the year; that is, his selection should be capable of carrying about 45 head of grown cattle, together with young stock and necessary working horses, and should also have at least 50 acres of cultivable land for growing feed for the cows. This should give him a gross income from his dairy of about £360 per annum, which ordinarily would be added to by pigs, crops, &c.

The standard suggested is for selections well situated; areas would need to be still further increased for lands more remote from railway, or subject to any special disability.

V.—Areas required on new standard.

What area will be required to fulfil this new standard? The carrying capacity of land varies greatly. The best of forest land in this district may carry one beast to five acres throughout the year. Forest land capable of being used for dairying varies in capacity from this down to one beast to ten acres.

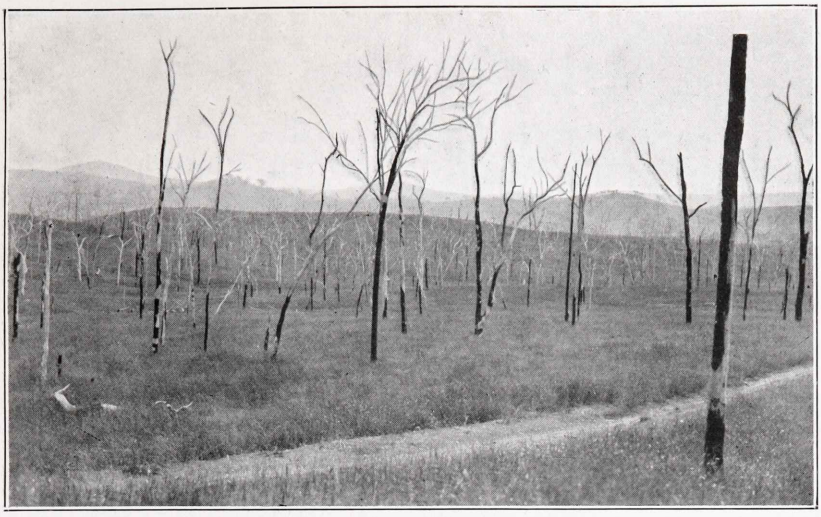
Areas would therefore range from 300 acres upwards according to quality, with an average area of, say, 500 acres. Scrub lands planted with artificial grasses are of better carrying capacity than forest country; moreover, such grasses retain their succulence longer.

We think, however, that 300 acres of the best dairying land on the settlement is sufficiently small.

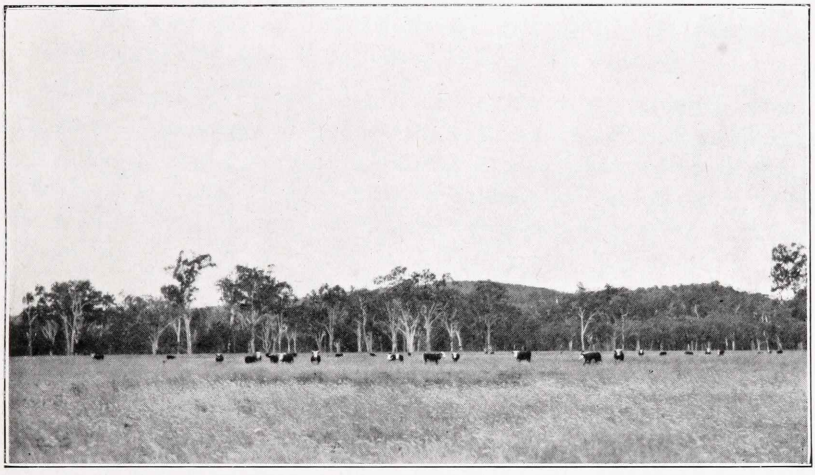
VI.—Increased areas not needed in all cases.

We repeat that increased areas will not be needed in all cases. In many instances settlers are satisfied with the areas they hold, and many areas conform to the standard laid down by us; in fact, a few settlers have more land than they can improve and bring into production.

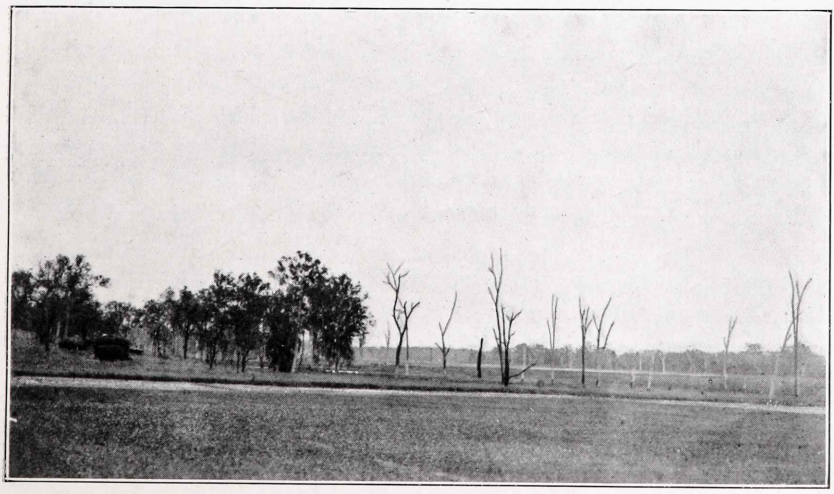
GRAZING AND AGRICULTURAL LANDS, UPPER BURNETT AND CALLIDE.



Ringbarked ridges between Waratah and Kolonga, Upper Burnett.



Hereford cattle grazing, parish of Grevillea, Callide Valley.



First-class cultivation land, Cania road, Upper Burnett.

"Rich belts of country exist which bear comparison with anything to be found in other parts of Queensland, and, if closer settlement could not succeed in the Upper Burnett and Callide, the outlook for increased primary production in Queensland would be dismal indeed."—Page 15.

Face Page 22.]

In all cases, however, where settlers have less than the standard area they should be allowed to increase their holdings.

VII.—The position of the family man.

It may be objected that a "45-cow standard" does not give much scope to a man with a large family. Each son of the family, however, if of the age of 16 years, may acquire or select a similar area on giving proof that he is in a position to develop it. The land may then be worked in conjunction with the father's block, and if distant not more than five miles, residence by the son on the father's block will suffice for performance of the condition of personal residence.

Moreover, there is no obstacle in the way of the father acquiring by purchase additional land when he is in a position to work it, so long as he keeps within the general limit as to area laid down by the Land Acts.

VIII.—Standard for grazing areas.

As already stated not all the land in the settlement is suitable for agriculture or dairying; some of it is purely grazing country.

The area required to make a living from grazing in this district varies according as the land is fattening or breeding country.

The evidence establishes that a fair return from fattening country is about 30s. per beast per annum on the carrying capacity of the holding. In our opinion grazing areas in this district should have capacities ranging from 300 head to 1,000 head of cattle according to the character of the country, distance from railway, and other circumstances present in each case.

ADDITIONAL AREAS FOR SETTLERS.

I.—Administrative difficulties in granting additional areas.

The matter of adjusting areas at this stage will be a task of great difficulty. It is well to recognise that no matter how admirably the matter may be handled, no matter with what equity and justice the claims may be met, all the settlers are not likely to be satisfied. Human nature has its weaknesses; self interest is still a powerful trait of mankind. Thus most men are poor judges of their own cases; they look not for equity or justice but for acquiescence in, and approval of, their claims.

It must not be expected, therefore, that these adjustments can be effected without criticism from those whose applications for additional areas are such that they cannot reasonably be met. Disappointed hopes, when concessions are going around, are always a source of heart-burning and discontent. However, if the interests and prosperity of the whole of the settlement are truly served, that is all we can hope to accomplish.

II.—Two main classes for consideration.

Two main classes of cases will arise for consideration, selections which have vacant Crown lands either adjoining or in close proximity, and selections which have no available Crown lands in their neighbourhood.

The first group of cases may be adjusted by allotting to each selector a portion of the available Crown land as an additional area, or in the event of there being more than one applicant with equal claims, by holding a ballot to determine priority.

But in the case of two claimants for the same additional area it might so happen that one of them had fully developed his existing holding while the efforts of the other had been somewhat half-hearted. In such an event we think the person who had proved his greater capabilities as a selector should receive preference over the other applicants.

In the second group of cases, where no Crown land exists in the immediate neighbourhood, the selectors should be allowed to adjust their position by buying from or selling to one another. In the event of a selector selling his holding to his neighbour, he should be allowed to select a sufficient area of available land elsewhere in the scheme.

III.—Should additional areas be granted some distance away from original holdings ?

Another question that arises is whether, in the event of there being no vacant Crown land near at hand, additional areas should be granted at some distance, say up to ten miles, from original holdings. The evidence shows that opinion amongst settlers is about equally divided on this question. Many would prefer such additional areas to none at all, while many think that additional areas, so situated, would be of little value to them.

The Board does not favour the proposal. We think that moves of this kind, dictated by expediency, should be barred. In our opinion such a form of patchwork settlement would give satisfaction to very few and ultimately would be against the best interests of the district.

IV.—Summary of recommendations as to areas.

Summarising the requirements of the position as to size of areas and as to granting additional areas we *recommend* :—

(1) That the areas for new settlement in the Upper Burnett and Callide Valley be based on dairying rather than on agricultural pursuits.

(2) That each settler be allowed to hold such an area as will permit him to milk at least 30 cows all the year round—that is, his selection should be capable of carrying at least 60 head of mixed dairy stock, with necessary working horses, and should also provide at least 50 acres of cultivable land.

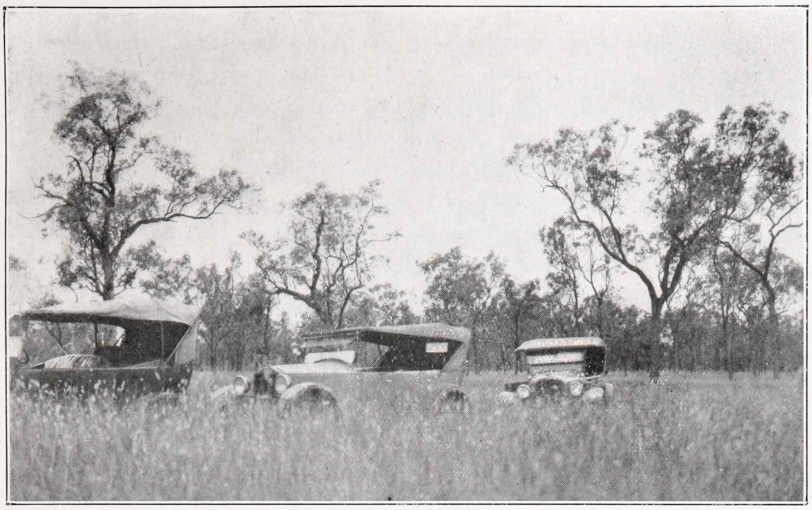
(3) That new selections remote from railway, or subject to other disabilities, be increased in area beyond this standard.

(4) That selectors already established on areas that do not conform to above standard be allowed to increase their holdings—

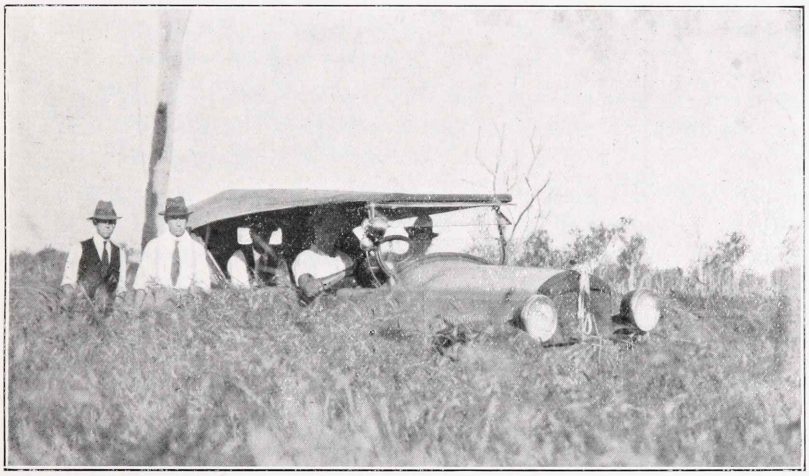
(*a*) By the allotment to them of an additional area in the event of there being vacant Crown lands in the immediate neighbourhood ; or

(*b*) By the purchase of a neighbouring selection.

NATURE'S WEALTH, CALLIDE VALLEY.



Natural grass, parish of Grevillea (third section).



Growth of natural grass, Callide Valley.

Extensive flats, parish of Grevillea (third section).
The third section has not yet been made available for settlement.

"Judged on the basis laid down recently by the British Economic Mission, the Upper Burnett and Callide Valley Settlement Scheme may be regarded as a sound State investment. Indirectly, it will return interest and redemption manifold."—Page 10.

Face Page 24.]

(5) That additional areas be not granted more than a few miles away from the original selection, and that generally selectors requiring an additional area, whose selections adjoin available Crown land, be regarded as having a better claim to such available land than selectors more remote.

(6) That claims for additional areas of available Crown land be heard in open Court, and be determined judicially by the Land Commissioner, with a right of appeal to the Land Administration Board, whose decision would be final.

(7) That when additional areas have been granted, or acquired, personal residence on one of the blocks should be regarded as sufficient—that is the additional area should be free from residential conditions.

(8) That in order to facilitate adjustment of areas, selectors be allowed to sell their holdings to their neighbours. For this purpose the subdivision of selections and the sale of a portion to one neighbour, and a portion to another neighbour, to be allowed, and the Agricultural Bank to make advances to assist such dealings.

(9) That *bona fide* selectors who sell their holdings to neighbours be eligible to select a new selection of adequate area elsewhere in the settlement.

(10) That the area of grazing land which one person may acquire be regulated according as it is fattening or breeding country, and that these areas vary from a carrying capacity of 300 head to 1,000 head, according to the circumstances present in each case.

CAPITAL VALUES AND RENTS.

I.—Range of capital values and rents.

The capital values of dairying or farming blocks on the settlement range from 17s. 6d. per acre to £3 10s. per acre, and the rents payable on grazing lands from ¾d. to 5½d. per acre. These figures include "loading" for the necessary roads and bridges constructed by the Crown.

II.—The method of adding loading for roads and bridges.

At one time it was the practice of the Department to show "loading" separately, but for certain administrative reasons that practice was discontinued, and the value of the land and the amount of loading, although calculated separately, were eventually lumped together in one sum as the capital value.

In the case of this settlement the loading on Perpetual Leases was arrived at on an acreage basis—that is each acre of land carried the same amount of loading, irrespective of the quality or productive capacity of the land. The consequence of this method was that the capital values of inferior lands were fixed at rates relatively higher, and out of proportion to the capital values fixed on the good lands.

However convenient this method may be, in practice it is unsound, and hence many capital values need to be reviewed.

III.—Conflicting views of selectors.

About two-thirds of the witnesses who came before us asked for a reduction in capital values, the remainder were satisfied with their present values. In fact many settlers expressed the view that the capital values of their selections were moderate, and that it would be unreasonable to request a reduction.

IV.—Rents are merely 1½ per cent. of capital values.

It has already been pointed out earlier in this Report that, on the Perpetual Lease system, the rental payable is merely 1½ per cent. of the capital value. As the real value of money is about four times this percentage, capital values would indeed have to be high before the tenant was unduly burdened by rent. On present capital values the rents payable by tenants on average selections range from about £6 to £13 per annum, or from 2s. 6d. to 5s. per week. Such rents, providing the selections were reasonable living areas, would be quite moderate.

Crown tenants cannot expect to get their lands for nothing, because the Crown loses the grazing rents which were formerly collected from the lands, and has to pay interest and redemption on the cost of resumptions and on the cost of constructing roads and bridges, not to mention the new settlement railways.

V.—Recommendations as to rents.

While we think that the best of the lands are not unfairly rented, we consider it desirable that reductions be made on the more inferior dairying lands and on the grazing lands.

We therefore recommend that the Board be authorised to review all capital values and rents so that they may be fixed in correct relation to each other, and in all cases be based on the quality and productive capacity of the land.

FREEHOLD TENURE *V.* PERPETUAL LEASE.

I.—Difference between annual rents on Agricultural Farms and Perpetual Leases.

Allied to capital values and rents is the question of tenure, because if the Government decides to allow conversion of the tenure of the lands in this settlement from Perpetual Lease to Agricultural Farm Selection, the rents on the new basis will be different. As already stated, rents on the Perpetual Lease system are 1½ per cent. of the capital value. On the other hand, the purchasing price of Agricultural Farms is paid by the Crown tenant, in annual instalments as rent, over a period of thirty years; during the first twenty years the annual rent is one-fortieth, or 2½ per cent. of the total purchasing price, and during the remaining ten years it is one-twentieth, or 5 per cent. of the total purchasing price. These payments complete the purchase of the land, and entitle the selector to a Deed of Grant.

II.—Merit of Freehold *v.* Perpetual Lease is a political question.

The merit of Freehold *v.* Perpetual Lease is a political question which it is not our function to discuss, for it is a well recognised constitutional maxim that permanent officers of the Crown should not engage in political controversies, nor publicly comment on any matter affecting their Departments, which is a current political issue in the country. We intend to observe that maxim.

The late Government, which founded this settlement, adopted the perpetual lease tenure as a matter of policy. If that system is continued it is necessary, as explained above, that the lands be revalued. Should, however, the present Government decide to allow conversion to freehold it will be still necessary to review and reduce the value of the lands so that the annual rents, payable as instalments of purchasing price, may be fixed at a fair economic amount in each case.

III.—Settlers prefer Agricultural Farm or freeholding tenure.

Before leaving this subject it only remains for us to record the fact that the majority of Crown tenants on this settlement who expressed their views on the question prefer that their selections be held under a freeholding tenure rather than under the perpetual lease system.

WATER FACILITIES.

I.—Need for artificial supplies.

When this country was used for grazing, and was divided into large paddocks for that purpose, the natural water supply, augmented by a few wells, was sufficient for all purposes. When it was divided into small holdings, however, the natural water supplies were confined to comparatively a few blocks, and it was necessary to obtain artificial supplies for the remainder.

II.—Government assistance granted.

To aid settlers in locating underground supplies of water and in sinking wells and sub-artesian bores, Government assistance was offered. The officers of the Irrigation Commission advised against the putting down of earth tanks in this settlement, on the ground that bores gave a better and cleaner supply of water, and because of the non-holding nature of the ground in places. Wells and sub-artesian bores were therefore concentrated on, and little has been done in the way of putting down tanks.

Arrangements were made by the Minister for Lands, through the agency of the Irrigation Commission, to sink bores and supply equipment, on the application of settlers, subject to the following terms and conditions :—

(1) The settler was to take over the water facility at its actual cost, provided that no settler would be charged more than £300—that is, no matter what the bore might cost, the settler's maximum liability would be £300; any amount in excess of that would be a loss to the Crown.

(2) Windmills or engines, and troughing were to be supplied to the settler at actual cost.

(3) Interest and redemption payments were to be made by the settler, in the case of the bore over a period of 20 years, the redemption payments to start after the third year, and in the case of the equipment over a period of 10 years, redemption payments to start after the second year. Interest and redemption payments would amount to £8 16s. 0½d. per cent. for the bore and £15 6s. 5d. per cent. for the equipment.

III.—Method adopted.

Much of the country presented no difficulty in the matter of subterranean water supplies, but some of it, particularly the Mulgeldie scrub area, was notoriously difficult. The method adopted was for the Government Water Finder to choose a site on which the officers of the Irrigation Commission sank the bore. The work was entirely controlled by the Irrigation Commission, and the full cost thereof was charged to the Lands Department, which, in turn, took a mortgage over the selection providing for repayments as outlined above.

IV.—Quality of work done.

We are satisfied, from the evidence, that the quality of the material and workmanship in these bores and equipments is quite satisfactory. Only a few specific complaints were made to us, and these are being departmentally considered.

It was also complained by several settlers that certain items of the equipment were of a better standard, and consequently cost more than the price at which suitable articles of lesser quality could be obtained. We have no doubt that this is correct, but when ten years' repayment terms are allowed the equipment has to be of high quality so that it will stand up to constant use over that period. No settler could obtain the equipment supplied him by the Irrigation Commission at a less cost than he is charged.

V.—Weakness of method.

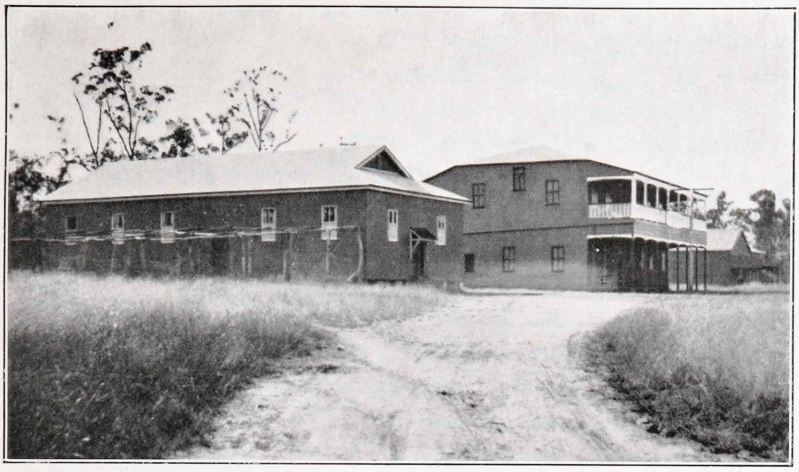
This method of assisting the settler to provide a water facility may seem admirable, yet it has a great and serious weakness.

Many Crown tenants are willing to make contractual obligations with the Crown, intending at the first opportunity to try and obtain relief from them. They know that the Crown is interested in their welfare and is not likely to be unduly harsh if default is made in payments. They know that the Government is elected by the people, and they rely on the influence that the power of a vote can sometimes secure. Nothing could be more dangerous to the success of closer settlement schemes, under democratic Government, than this tendency which many small settlers have of entering lightly into contractual obligations with the Crown, and then at the first opportunity trying to escape their individual obligations by passing them on to the community. This is a modern tendency, and it must be dealt with departmentally with a strong hand. Too much "spoon feeding" will never make a successful settler, rather it produces a discontented, grumbling, and unreasonable tenant, whom nothing will satisfy, and all administration displeases.

VI.—Water charges over-capitalise some blocks.

And yet, no matter what motive may have induced Crown tenants voluntarily to undertake these obligations, we are forced to the conclusion that some of the water charges over-capitalise some of the blocks. If obligations are to be enforced it is necessary that they be such as can be economically borne by the tenant. We cannot see how an average tenant

THE TOWNSHIP OF BILOELA, CALLIDE VALLEY.



The Public Hall at which the Board conducted its investigation.

The main street, Biloela.

The main street, Biloela.

"The progress that has already been made, and the towns that have been established throughout the area, speak well for the energy and enterprise of the people, and, in the course of time, there is no reason to doubt that this great new district will compare favourably in prosperity with the older closer settled districts of the State."—Page 15.

Face Page 28.]

can afford to pay, on a small block, £300 for a bore and £200 for equipment, on the terms charged. The interest and redemption payments would amount to £26 8s. for the bore and £30 12s. for the equipment, or a total water charge of £57 per annum. In addition to this the settler would have to pay rent, rates, improve the land, and probably pay interest and redemption on an Agricultural Bank loan. It cannot reasonably or economically be done.

VII.—Illustrations of over-capitalisation.

Instead of a hypothetical case we will give some actual examples.

Portion 103, parish of Selene, is a scrub block comprising 149 acres. Its capital value is £1 7s. 6d. per acre. The annual rent, on the basis of 1½ per cent. of the capital value, amounts to £3 1s. 7d., or approximately 5d. per acre. The cost of the bore to the selector is £300, and of the equipment £192, making a total of £492, which equals a capital cost over the whole block of £3 6s. per acre. His interest and redemption charges now payable amount to £55 16s. 5d., or 7s. 6d. per acre per annum.

Portion 19, parish of Tellebang, is also a scrub block. It comprises 161 acres. The capital value is £2 10s. per acre. The annual rent amounts to £6 0s. 11d., or 9d. per acre. The cost of the bore to the selector is £300, and of the equipment £357, making a total of £657, or £4 1s. 7d. per acre over the whole portion. The interest and redemption charges now payable amount to £81 2s., or 10s. 1d. per acre per annum.

Can there be any doubt that some blocks have been over-capitalised ?

VIII.—The possibilities of earth tanks not sufficiently tested.

In regard to earth tanks we are of the opinion that they have not been sufficiently tested. Many selections have good catchments, and the Board is satisfied that the subsoil in a large number of the blocks will hold water well.

The present price, locally, for the construction of earth tanks is 2s. per cubic yard. If a number of tanks were to be put down it is probable that tenders could be obtained at 1s. per yard. On this basis the cost of clearing the site, constructing a 2,000-yard tank, and necessary silt tank and drains, would be about £150. This would provide a satisfactory and cheap water supply for a selection. In the provision of future water facilities we think that more attention should be given to the possibilities of earth tanks.

IX.—Particulars of water facilities.

A schedule giving in detail particulars of water facilities provided for settlers is contained in Appendix E. The depth of wells ranges from 22 feet to 70 feet, and of bores from 36 feet to 666 feet. The cost of the wells and bores varies from £26 to £498. The cost of the equipment varies from £35 to £357. The total amounts which the selectors are required to take over on mortgage in respect of water facilities, including equipment, vary from £137 to £657.

X.— Total Crown expenditure to date on water facilities and equipments.

The total Crown expenditure to 31st March, 1929, on water facilities and equipments, including plant, was £73,760 4s. 6d., made up as follows :—

	£ s. d.	£ s. d.
Construction of water facilities		53,806 6 6
Stores		3,524 3 3
Plant		9,419 2 4
Administration—		
Salary and expenses	5,140 1 4	
Fares and freight	177 7 9	
Miscellaneous (including wet weather pay) ..	3,597 2 2	
Car	498 14 1	
Holiday pay	946 6 2	
	10,359 11 6	
By transfer to individual water facilities (7½ per cent.)	3,348 19 1	7,010 12 5
Total		£73,760 4 6

XI.— Amount covered by settlers' mortgages.

Mortgages have been executed by selectors to date covering 235 bores or wells, and amounting to £45,433 8s. 3d. Further mortgages are in course of execution. Particulars are as follows :—

	£ s. d.
Cost of bores or wells	22,643 16 4
Less amount borne by Crown	1,568 6 9
	21,075 9 7
Cost of equipments	24,357 18 8
Total	£45,433 8 3

235 bores or wells cost the Crown £22,643 16s. 4d. (average £96 7s. 2d.).
235 bores or wells cost selectors £21,075 9s. 7d. (average £89 13s. 7d.).
148 equipments cost selectors £24,357 18s. 8d. (average £164 11s. 7d.).

XII.— Loss incurred by Crown.

The amount of loss incurred by the Crown to date in the provision of water facilities totals £14,519 9s. 6d., or 19·5 per cent. of the total expenditure. This is made up as follows :—

	£ s. d.
Unsuccessful bores	5,940 10 4
Expenditure in excess of amount charged to selectors	1,568 6 9
Difference between actual cost of supervision and amount charged to selectors	7,010 12 5
Total	£14,519 9 6

A list of the unsuccessful bores, with reason for failure in each case, is given in Appendix F.

XIII.— Overhead costs are too high.

It will be noticed that the overhead costs in connection with these water facilities, including wet weather and holiday pay, are high, amounting to approximately 20 per cent. of the total outlay. This, however, is not all charged to the settler. He pays overhead costs at the rate of 7½ per cent. on the cost of construction ; the balance is a loss to the Crown. That loss to date has amounted to £7,010 12s. 5d., which must be regarded as unsatisfactory.

There are a number of reasons for this high overhead cost, but the chief one only need be referred to. At the outset of this scheme the Government decided that the Irrigation Commission, acting as agent for the Lands Department, should put down these bores. This decision was merely in conformity with the general Government policy that there should be no duplication or overlapping of departmental activities or of staffs. Ordinarily, it is a perfectly sound principle. But in this instance the Lands Department already had Public Estate Improvement Staff and gangs operating in the area and all necessary administration machinery in connection therewith. The establishment by the Irrigation Commission of another working staff, separately and independently controlled, meant further administrative machinery and additional overhead costs.

If the Irrigation Commission's staff operating in the area were temporarily transferred to the control of the Land Administration Board, while engaged in this special work for which the Board must pay, the Board would be able to arrange complete co-ordination between the two sections, utilise all employees to the best advantage, dispense with duplication of staffs, and generally reduce overhead costs.

This matter is again referred to in a later section of this Report dealing with Departmental Administration, and as it involves a question of Public Service organisation we have also dealt with it, in greater detail, in a separate memorandum addressed to the Public Service Commissioner.

XIV.—Recommendations in regard to water facilities.

In regard to water facilities (including equipment) we make the following recommendations :—

(1) That the Land Administration Board, which has to meet all the costs in connection with water facilities, be given control of this work. For this purpose it is suggested that the water facility gangs and staff now operating in the Upper Burnett and Callide be placed, while engaged on such work, under the direction and control of the Board. This will considerably reduce overhead expenses.

(2) That, notwithstanding the fact that mortgages have been executed, the Board be authorised to write down water costs to such amounts as will, in the judgment of the Board, be a fair capitalisation for each block. This will probably mean that a further sum of about £2,000 will be written off.

(3) That when water costs have been adjusted in this manner, the payment of interest and redemption by the settler be strictly enforced.

(4) That to provide cheap and satisfactory facilities for selectors in future, more attention be given to the possibilities of earth tanks.

ROADS AND BRIDGES.

I.—Early settlement and roads.

The lands of the Upper Burnett were first used for grazing more than seventy years ago when the territory formed part of the Colony of New South Wales. They have been in continuous occupation ever since. As time went on, roads were constructed and creek crossings were made to the extent that was necessary for the effective use of the country for cattle grazing. Then, at last, came this settlement scheme which altered the whole aspect of road communication.

II.—Need for additional roads and bridges.

With the advent of closer settlement entirely new roads had to be constructed to serve the new subdivisions and enable the settlers to get their products to the railway. New bridges, causeways, and crossings were also needed. Whereas, formerly, it was of little economic importance if a cattle grazier were isolated for a few weeks owing to the state of the roads and crossings, it is necessary under the altered settlement conditions that settlers should have daily, or almost daily, communication with the railway.

III.—General road policy and expenditure.

The work of constructing the necessary roads and bridges was undertaken by the Public Estate Improvement Section of the Lands Department. The roads are intended to give reasonable pioneering access only—that is, they are cleared, where necessary formed with a grader, and rolled, but, except in a few exceptional places, they are not gravelled. The bridges, however, are first-class structures.

The cost of this work is, in the first instance, borne entirely by the Crown, and is defrayed from a parliamentary vote. Over a long period of years repayments are made by the selectors through the "loading" which is added to the capital value of their lands. When the roads and bridges have been constructed they are handed over to the Local Authorities, and the Crown accepts no further responsibility in respect of them.

Since the inception of the scheme five bridges and causeways have been built, and 634 miles of road constructed. Expenditure has been as follows :—

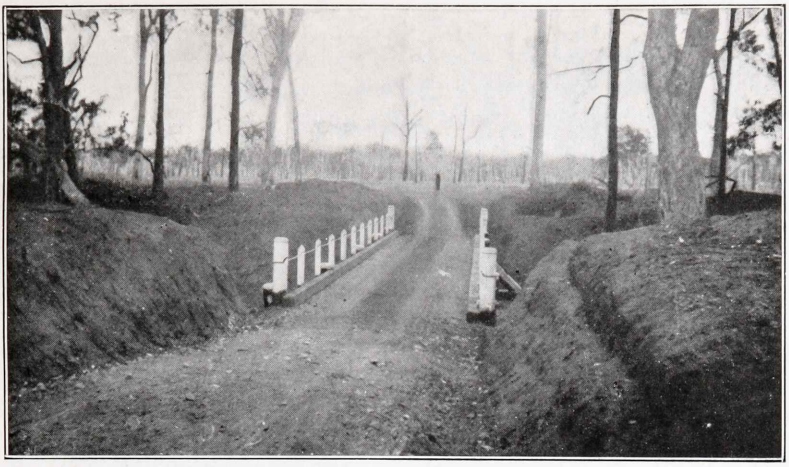
—	Roads.	Bridges.	Total.
	£ s. d.	£ s. d.	£ s. d.
1923	6,237 10 1	..	6,237 10 1
1924	11,840 4 1	..	11,840 4 1
1925	12,453 18 1	696 19 5	13,150 17 6
1926	10,381 12 11	824 9 10	11,206 2 9
1927	10,121 5 0	1,411 12 2	11,532 17 2
1928	16,856 7 7	2,381 14 1	19,238 1 8
To 31st March, 1929..	3,700 2 11	1,617 16 5	5,317 19 4
	£71,591 0 8	£6,932 11 11	£78,523 12 7

Bridge figures include only large bridges. All culverts and crossings are charged to "Roads."

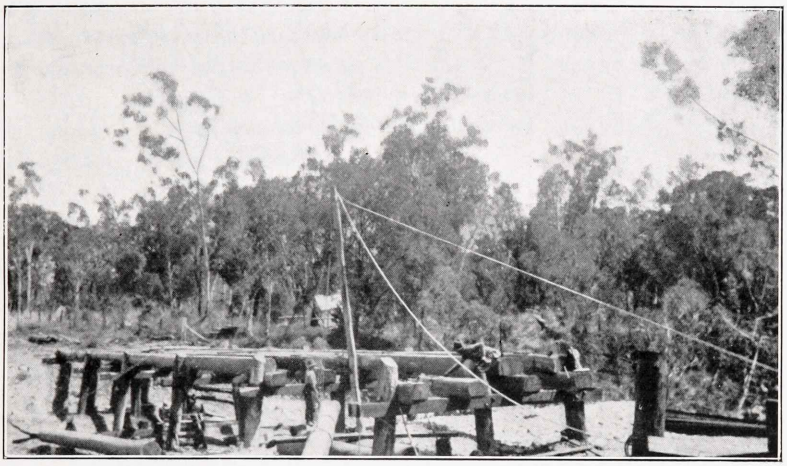
IV.—Plant and gangs employed and general standard of work.

The road work was commenced without adequate machinery, and much of the early construction was of an inferior standard. This shortcoming, however, has since been remedied, and modern road-making plants are now in use.

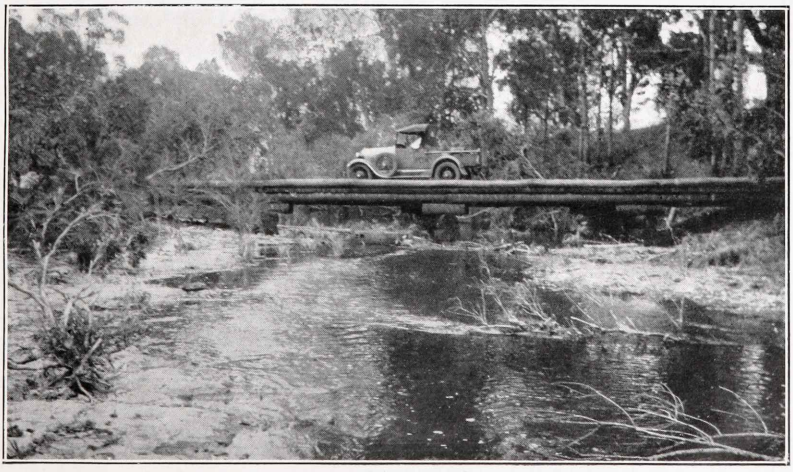
NEW BRIDGES ON THE SETTLEMENT.



Bridge over Three Moon Creek, near Monto, Upper Burnett.



Kroombit Creek bridge under construction, Callide Valley.



Mack's Crossing, Monal Creek, near Monto, Upper Burnett.

"With the advent of closer settlement entirely new roads had to be constructed to serve the new subdivisions and enable the settlers to get their products to the railway. New bridges, causeways, and crossings were also needed. Whereas, formally, it was of little economic importance if a cattle grazier were isolated for a few weeks owing to the state of the roads and crossings, it is necessary under the altered settlement conditions that settlers should have daily, or almost daily, communication with the railway."—Page 32.

Face Page 32.]

The machinery and plant on hand, exclusive of the ordinary small tools and equipment, comprise the following:—Two Wehr graders, two 5-ton rollers, three utility trucks, three 1-ton trucks, and two pile-driving units, making twelve oil-driven engines in all, sixteen horses, six drays, and necessary road ploughs and scoops. There is also the necessary equipment for bridge building.

All works are carried out under the direction of the Engineer, who is assisted by three experienced Field Assistants with headquarters at Mulgeldie and Biloela. There are eight road gangs, four bridge gangs, and two road machinery gangs, making fourteen gangs in all, comprising some eighty men. Each gang is controlled by a competent ganger.

V.—What Board's inspections showed.

In travelling throughout the settlement we travelled over 1,000 miles of roads. We therefore traversed most of the road systems in use. Our inspections commenced the week following heavy rains of about 7 inches. The roads were therefore seen at their worst. On the whole they were in reasonably good condition for a pioneering settlement, but in some places they were very boggy, and a few instances were quoted to us of settlers losing their cream for some days, as the condition of the roads did not permit their getting it to the railway.

VI.—Repair work undertaken forthwith.

The Board forthwith recommended, notwithstanding that the roads in question had been handed over to the Local Authorities, that the bad sections be immediately repaired at Government expense. The then Government approved of this recommendation; the work was commenced at once and is still proceeding.

VII.—Local authorities interested.

The Upper Burnett Area is mostly in the Shire of Eidsvold; a small portion of it is in the Mount Perry Shire; the Callide Area is in the Shire of Banana. These three Shire Councils, with headquarters outside the settlement, at Eidsvold, Mount Perry, and Banana respectively, must undertake the responsibility of maintaining all the roads on the settlement when they have been completed. Of the three Shires, Eidsvold contains much longer mileage of new roads, and will, consequently, have to carry the heaviest burden, but, on the other hand, will have the largest revenue.

After the adjustments we are recommending with regard to the settlement have been carried out, viz.:—

(*a*) Repairs to bad sections of roads;
(*b*) Increased areas to settlers;
(*c*) Review of capital values and rents;
(*d*) Review of water facility charges in special cases;

we think that the Shire Councils will have no difficulty in collecting from the settlers an equitable amount of rates that should be sufficient, without Government aid, to maintain the roads.

VIII.—Suggested change of Shire head-quarters.

Eidsvold is, we think, not the most satisfactory centre for controlling the Local Government affairs of the larger portion of this new district. In its mining days Eidsvold was a town of considerable importance, but with the decline of mining the town declined, though it continued to exist as the centre of a pastoral or grazing district.

The land around Eidsvold is inferior to the land further north comprised in the Upper Burnett, and consequently is not capable of much development.

The town of Monto, on the other hand, is in the centre of the new settlement, surrounded by rich land with great potential productivity. It must undoubtedly be the chief town of the district. We think, therefore, that consideration should be given to shifting the Shire Headquarters to the heart of the new settlement at Monto. Indeed if the Government would consider the abolition of the Eidsvold Shire and the creation of a new Shire of Monto, embracing all the lands in the settlement, such action would materially advance the welfare of the district.

IX.—Mount Lookerbie-Monto road *versus* railway.

As explained elsewhere the railway from Rockhampton is now open to the town of Thangool, which is about sixty miles north of Monto by road. The rails have been laid beyond this point, and earth works constructed to Mount Lookerbie, seven miles beyond Thangool, but all work has been stopped for some time, and this section is not yet available for traffic. Before work is proceeded with beyond Mount Lookerbie it is recommended that the merits of a good road *versus* a railway be carefully considered.

A good road would cost less than half the amount needed for a railway, its cost of maintenance would also be less than half, while the users of the road, unlike the railway customers, would provide the whole of their own running costs. The extension of the railway would not materially affect the land settlement position, nor would it add to railway revenue, as all the production from the intervening lands would be sent to the nearest railway station in any event.

X.—General recommendations *re* roads.

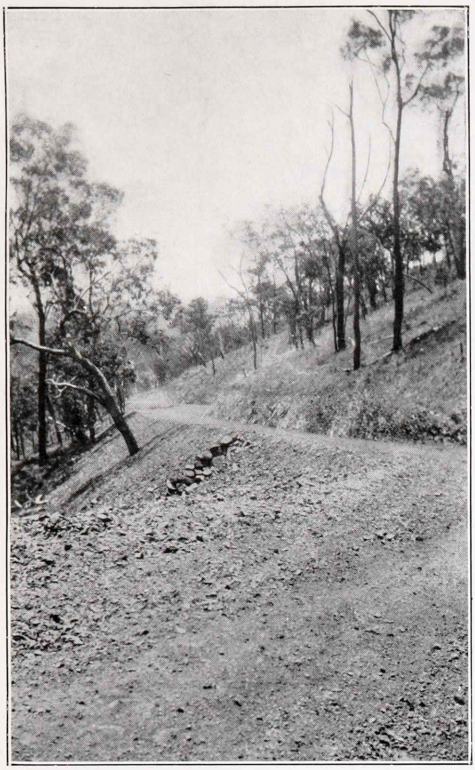
On the subject of roads and bridges we *recommend* as follows :—

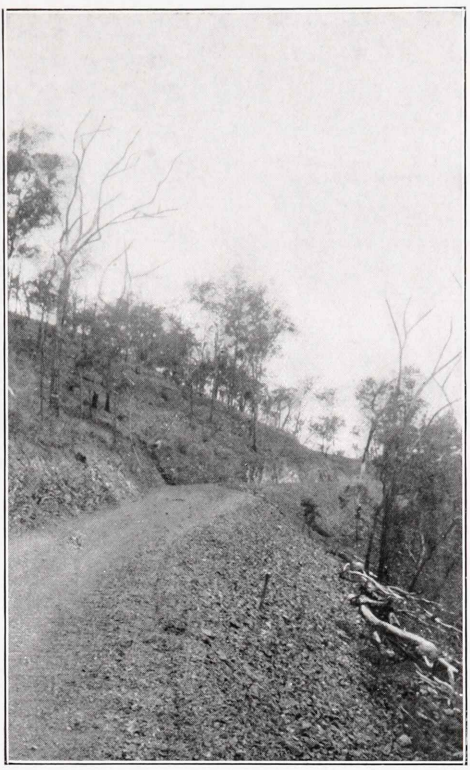
(1) That sections of the Public Estate Improvement constructed roads, that have proved untrafficable in wet weather, be re-formed and repaired by the Public Estate Improvement Section of the Department without contribution from the Local Authority, but the Local Authority to be responsible for all future maintenance.

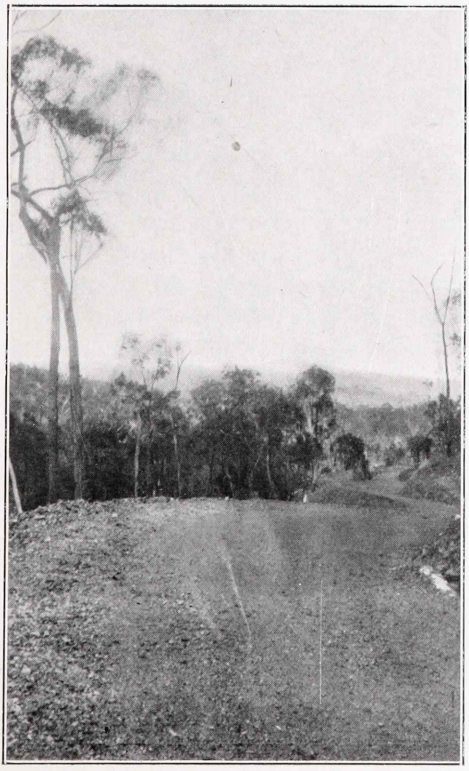
(2) That when allotments in new townships are being offered for sale by the Government, the street fronting such allotments be cleared and formed by the Public Estate Improvement Section.

(3) That the annual Parliamentary Vote for all Burnett works, including roads and bridges, water facilities, and pear destruction, be increased by £10,000, making £50,000 in all.

GRADED ROADS OVER RIDGY AND MOUNTAINOUS COUNTRY.







Different views of roads between Monto and Kalpowar, Upper Burnett.

Face Page 34.]

This will enable the work to be speeded up, will release the Government from all liabilities at an earlier date, and will prove more economical in the end.

(4) That, on economic grounds, consideration be given to the construction of a good road or a main road from Monto to Mount Lookerbie in preference to a railway.

(5) That consideration be given to making Monto the headquarters of Local Government for the Upper Burnett.

OPERATIONS OF THE AGRICULTURAL BANK.

I.—Applications for advances approved and refused.

The State Agricultural Bank has furnished us with the following statistics illustrative of the Bank's operations in the Upper Burnett and Callide :—

—	No.	Amount.
		£
Total applications for advances received since inception of scheme, *i.e.*, from 1st January, 1924, to 31st March, 1929..	874	176,523
Applications approved (including fifty-two applications for £9,453 under Discharged Soldiers' Settlement Acts)	689	88,131
Applications refused	171	42,364
Applications cancelled or withdrawn	7	1,023
Applications in abeyance pending receipt of inspector's reports, &c. ..	7	1,780

An advance of £9,000 has also been granted to the Port Curtis Co-operative Dairy Association, Ltd., for the erection and equipment of a butter factory at Monto.

II.—Other financial institutions may compete with Agricultural Bank.

We found that a number of settlers were under the impression that the Agricultural Bank had a monopoly of this business, that the law would not allow settlers to obtain advances from other financial institutions on the security of a mortgage over their selections. It was obvious that some of them were chafing under this supposed restriction. We pointed out that their interpretation of the law was incorrect, that the Minister has a discretion in allowing mortgages to institutions other than the Agricultural Bank, and further, we gave a definite assurance that, if *bona fide* applications were made for permission to obtain money from any recognised financial institution on mortgage, such permission would be granted.

IMMIGRATION SETTLEMENT.

I.—Previous reports on Immigration Settlement.

The Upper Burnett and Callide Valley has already received attention as a possible field for the settlement of migrants.

The present Minister for Trade and Customs, the Hon. H. S. Gullett, when he occupied the position of Commonwealth Superintendent of Immigration in Australia, was sent, in 1921, by the then Commonwealth Prime Minister, the Right Hon. W. M. Hughes, P.C., to report on the suitability of the area for that purpose. The land was then being used for grazing only.

Mr. Gullett traversed the area from north to south, and spent a few days making general inquiries and investigations in the district. On his return to Melbourne he submitted to the Commonwealth Parliament a report on his investigations, and set out his conclusions, *inter alia*, as follows :—

(1) In its soil, rainfall, elevation, and geographical proximity to the coast, the area is ideal for subdivision into small agricultural and grazing farms. Only railway communication and settlers are necessary to make it one of the most profitable rural localities in Australia.

(2) Only the great rural wealth of farming lands possessed by Queensland, political controversy as to the routes of the proposed railways, and the lack of money have withheld the area from closer settlement.

(3) An area with the same natural conditions, equal producing capacity, and located in New South Wales or Victoria, would, if served by railways but in its present undeveloped state, have an average value of at least £8 or £10 an acre, including its grazing portions.

(4) The area—by its richness, its magnitude, and the simple methods by which it could be pioneered—is ideal for settlement in part by carefully selected immigrants.

(5) As to climate, he expressed the opinion that "The Upper Burnett and Callide Valley country is, thanks to its elevation, as congenial to white people as any country in the Commonwealth."

II.—Land Administration Board is not the Authority in charge of migrant settlement.

The Land Administration Board is not the authority for framing settlement schemes for migrants. The Commonwealth Development and Migration Commission acts in association with a "State Consultation Committee on Developmental Proposals." This Committee is composed of representatives of several Public Departments, including the Lands Department, and is under the chairmanship of the Minister for Agriculture, and with a Deputy Chairman, the Under Secretary for Works. It is charged with the function of formulating developmental, settlement, and migration proposals for investigation by the Commonwealth Commission. In the circumstances we merely express our opinion that, if migrant land settlement is desired in Queensland, the lands in the Upper Burnett and Callide Valley will be found as suitable for the purpose as any other available land in Queensland.

In framing any scheme, however, it would be necessary to see that the rights of the Australian settlers already established in the district to obtain additional land where it is needed are fully protected.

PRICKLY-PEAR LAND.

I.—Some of Callide lands are pear infested.

The Upper Burnett Lands are almost entirely free of pear, but the northern and western boundaries of the Callide Valley Lands abut on pear-infested country, and parts of this section are infested. To date the Department has spent £10,501 in destroying pear by poisoning on this area, so as to prevent its encroachment on to the valuable closer settlement lands.

As the administration of the Callide Valley is under a special Act, these lands are excluded from the jurisdiction of the Prickly-pear Land Commission.

Notwithstanding the provisions of "*The Upper Burnett and Callide Land Act of* 1923" we recommend that all pear-infested land in the Callide Valley be dealt with by the Prickly-pear Land Commission under the Prickly-pear Land Acts. That is, we recommend that these lands be made available for settlement under the same terms and conditions as if they were ordinary infested Crown lands, and did not form part of a special settlement scheme.

II.— All infested lands should be dealt with under the Prickly-pear Land Acts.

DEPARTMENTAL ORGANISATION.

Since the inception of this settlement scheme the Upper Burnett has been included in the Gayndah Land Agent's District, under the jurisdiction of the Land Commissioner stationed at Maryborough, and the Callide Valley in the Rockhampton Land Agent's District, under the jurisdiction of the Land Commissioner at Rockhampton. As explained elsewhere, in order that the Board might keep in close touch with the administration of the area, a Field Superintendent was appointed in April, 1928, and was stationed at Eidsvold. This town was chosen because of the Public Office and private house accommodation there available.

I.— Administration from outside area is uneconomical and unwise.

Our inquiry has forced us to the conclusion that further efforts to administer this area from a place outside, or to postpone the formation of a separate Land Agent's District, would be both uneconomical and unwise.

To provide efficient administration we propose the following:—

II.— Suggested rearrangements.

(1) All the land in the Upper Burnett and Callide Valley to be gazetted a separate Land Agent's District under the name "Monto Land Agent's District."

(2) The Monto District to be in charge of a Land Commissioner, with a Land Agent stationed at Monto. The Land Commissioner to have general supervision over all administrative work on the settlement.

A Lands Office will be needed at Monto. For this purpose part of the large public offices at Eidsvold, which are only partly used, could be pulled down and re-erected on the new site.

(3) The Engineer in charge of road and bridge construction to be stationed at Monto, so that he may exercise a close supervision over all work, and expedite its completion.

(4) The work of the Public Estate Improvement Section and of Water Facilities to be co-ordinated throughout by the Board taking over the Water Facility organisation, and amalgamating it with the Public Estate Improvement organisation. At present these two organisations are entirely independent of one another.

In the opinion of the Board this rearrangement would produce greater efficiency in Departmental work, with corresponding public satisfaction. Not only would it be more in accord with business principles but it would actually be more economical than the present arrangement.

III.— Detailed recommendations made direct to Public Service Commissioner.

As Departmental reorganisations of this nature are made by the Government on the recommendation of the Public Service Commissioner, Mr. J. D. Story, I.S.O., we have addressed to the Commissioner a separate memorandum setting out details of the present and proposed staffs, and also illustrating the economies that may be effected as well as the greater efficiency that will accrue. Such a memorandum, dealing as it does with the position of individual officers and employees, is not suitable for inclusion in this public Report.

IV.—The question of accommodation for officers.

As Monto and Biloela are new townships, the question of accommodation for Public Officers stationed there will arise. The erection of the necessary Public Offices will be a matter for the Works Department. As already stated, consideration might well be given to removing part of the large unused public building at Eidsvold, and re-erecting it at Monto.

The matter of private housing accommodation is somewhat difficult. If the late Government's policy of not providing houses for its Lands Officials in country districts is adhered to by the present Government in the case of this new settlement, where no available housing accommodation at present exists, officers may be accommodated in one of four ways :—

(*a*) Live at one of the Department's construction camps ;

(*b*) Live at one of the hotels or boarding-houses ;

(*c*) Acquire some land and build for themselves ;

(*d*) Arrange with some business man in the town to erect a dwelling and lease it.

In a growing township with an assured future (*c*) abovementioned probably would be the most satisfactory course to follow. All the land sold to date, however, has been made available under Perpetual Lease tenure, and Lands Officials are precluded from acquiring any such land in the districts where they are working. This restriction would need to be abrogated in so far as one town residential allotment is concerned.

ACKNOWLEDGMENTS.

I.—Acknowledgment for assistance.

Mr. A. Hollingworth, Clerk in Charge of the Land Settlement Inquiry Section, acted as Secretary to the Board for the purposes of this Investigation. Mr. F. Williamson (*Hansard* staff) acted as Official Reporter.

It is due to these Officers that we record our appreciation of the ability and industry with which they discharged their duties.

W. L. PAYNE, Chairman,
A. G. MELVILLE,
F. D. POWER,
} Members of the Land Administration Board.

Appendix A.

[*Extract from "London Times" of 14th September, 1928.*]

IMPERIAL AND FOREIGN NEWS—SETTLEMENT IN AUSTRALIA.

(From our Perth Correspondent.)

It is more than a year since Mr. M. F. Troy, after his appointment as Minister of Lands and Group Settlements, toured the group settlement areas of Western Australia and acquainted settlers with the policy of his Government. An article, published immediately after in "The Times," outlined his difficulties and the prospects of the group settlement experiment at that date. It was said that there seemed little likelihood that the scheme would prove a financial success within a measurable period, but it was suggested that it might be the less tangible results of the most ambitious of all Australia's settlement schemes that would justify it in the long run.

Since that date a new executive Board to control the scheme under the Minister has been appointed; much bad land, hastily selected at the scheme's initiation, has been abandoned; and the number of holdings has been correspondingly reduced. Last year Mr. Troy made his announcement of policy to approximately 2,300 settlers: this year he has made another important statement to the bare 1,700 remaining. In the interval rather more than 600 settlers have given up their holdings. The reclassification of holdings was undertaken with the object of giving every settler who remained under the scheme a good opportunity of becoming a self-supporting and independent dairy farmer. This reclassification was completed several months ago, but the number of settlers who are self-supporting or independent seems, unhappily, to be as small as ever. The taxpayers in Western Australia strongly wish to see expenditure on group settlements very much curtailed, and Mr. Troy's new announcement of policy reflects this desire.

COST OF SCHEMES.

Exact figures are not at the moment available, but it is known that the total expenditure up till now upon group settlement in Western Australia (including roads and drainage) is about £7,500,000. Seventeen hundred settlers remain, none of whom is yet wholly independent of the taxpayers' help. The average amount to be spent on each of the remaining holdings must therefore probably exceed £4,000. The unfortunate Peel Estate—an area close to Perth which has proved quite unfit for settlement—has cost approximately £2,250,000, and there are only 180 settlers left on it; so it is unfair to average the expenditure over all areas. None the less, there are holdings in other areas, which have cost between £5,000 and £6,000, which are not yet supporting their settlers. Western Australia, with a total population of less than 400,000 and a total taxpaying population of less than half that number, cannot continue to carry so heavy a load for results so scanty.

These facts prompted the Minister (advised by the Group Settlement Board) to announce his new policy recently to a meeting of settlers. The Cabinet will decide on the amount of capitalisation upon which each settler is to pay interest and ultimately principal; and settlers will receive no further advances for routine farming operations as soon as they reach the standard of productivity represented by the possession of ten cows. It has been shown that the average amount expended in developing each holding under the scheme exceeds £4,000. So heavy an expenditure is the direct result of the policy of paying settlers for the development of their own holdings, as if they were labourers on a basis of weekly hire. Some such scheme was inevitable, inasmuch as it was necessary to give settlers some means of support until their holdings should become reasonably productive; but in practice the system has proved both pernicious and disastrous. Settlers have failed to realise that the properties they were farming were ultimately to become their own, and have been obsessed by consideration of the amount of "wages" that could be earned week by week and month by month. The system produced a state of mind which regarded payment for farming operations accomplished as more important than the development of holdings which should have been looked upon as personal property.

A HEAVY LOSS.

But no holding under the scheme can be expected to return, even in the hands of a capable dairy farmer with his heart in the job, interest upon a capitalisation of £4,000. The Cabinet will probably write off approximately three-quarters of the total expenditure on group settlement. A loss of between £4,500,000 and £5,000,000 is a very grave matter to the taxpayers of a small community, but it might be faced with relative equanimity if the 1,700 remaining settlers were finally established. They are not yet finally established, and it is only too likely that a number of them will abandon their holdings, as 5,000 of their predecessors have done, when they learn the exact figure upon which they have to pay interest. It will be very difficult to find men to put in their place, as it would be futile to put inexperienced men upon developed holdings, and almost impossible to get experienced men to take up holdings which at best can show only a bare margin of subsistence when interest has been paid on a capitalisation which will still be unduly high in comparison with market values.

Assistance to settlers is to cease when they have ten cows, and thereafter only such developments will be subsidised as are likely to result in permanent improvements of the holdings. Money is advanced on these conditions to new settlers by the Agricultural Bank of Western Australia, and the original Group Settlement Act provided that group settlers should be transferred to the control of the Agricultural Bank when they had reached an unspecified stage of productivity. It is now intended to keep "ten cow" settlers under the Group Settlement Board on Agricultural Bank conditions. The proposal is an improvement on the original, for the Group Settlement Board has ample dossiers about both settlers and holdings.

The Ministry will be open to serious criticism if costs are permitted to mount again after this readjustment. For seven and a-half years the holdings have been continuously developed in such matters as clearing, fencing, and draining, and there should not now be many more improvements of that kind to be done on a large scale.

Appendix B.

RETURN OF OPERATIONS AT THE MUNDUBBERA BUTTER FACTORY (THE MARYBOROUGH CO-OPERATIVE DAIRY ASSOCIATION LIMITED) FOR THE YEAR 1928.

Month.	Butter Manufactured.	Amount paid Suppliers.	Price per lb.	Number of Suppliers.
	Lb.	£ s. d.	s. d.	
January	318,810	16,966 9 9	1 1	571
February	275,322	15,379 10 2	1 2	598
March	272,102	16,835 5 3	1 3	582
April	175,310	10,068 1 10	1 2	563
May	129,928	8,539 11 3	1 4	537
June	88,062	5,883 15 11	1 4	516
July	90,710	6,731 19 5	1 6	498
August	105,970	7,965 6 10	1 6	524
September	111,462	8,291 0 8	1 6	542
October	122,491	8,573 17 5	1 5	553
November	178,870	12,548 17 2	1 5	600
December	240,536	16,919 8 7	1 5	609
Total	2,109,573	134,703 4 3	..	..
Monthly averages	175,797¾	11,225 5 4¼	..	557·75

Appendix C.

ALPHABETICAL LIST OF WITNESSES.

Name of Witness.	Approximate Area Interested in.	Place at which Evidence Given.	Page of Evidence.
	Acres.		
Anger, Charles Augustus	6,000	Monto	272
Anskenewiz, Heinrich	250	Abercorn	144
Anskenewiz, Waldemar Adolf	352	ditto	143
Arneil, James	1,190	Goovigen	651
Ashton, Percy	343	Mulgeldie	214
Avard, James Justin	520	Eidsvold	78
Avis, Joseph Lawrence	348	Mulgeldie	194
Bailey, Aubrey Frank Charles	1,088	Biloela	483
Bailey, Norman	407	Waratah	422
Bailey, Thomas Guthrie	1,100	Monto	289
Baldwin, Arthur Egbert	296	Kalpowar	347
Bale, Horace Arnold Victor	197	Goovigen	642
Ball, Henry	688	Kalpowar	358
Ball, John	1,490	ditto	359
Ball, Joseph	710	ditto	361
Barbour, Henry Albert	1,395	Waratah	421
Barlow, Daniel Joseph	300	Goovigen	646
Barrett, Colin Stuart (per Stuart Andrew Barrett)	2,470	Thangool	549
Barrett, Stuart Andrew	7,500	ditto	549
Bartlett, William Henry	557	Abercorn	139
Basson, Edward James, on behalf of Jamieson Group	719	Mulgeldie	186
Bassett, Frederick	380	Mundubbera	34
Bate, Arthur Garfield Tucker	259	Monto	237
Batten, Arthur	727	Mundubbera	13
Bayntun, Felix Frederick	620	Eidsvold	82
Beaton, William	319	Waratah	398
Beck, Martin Petersen	581	Eidsvold	73
Becker, Ernest Valentine	800	Abercorn	157
Bell, Percy James	486	Mulgeldie	184
Benecke, Johann Theodor Frederick Carl	466	Abercorn	126
Bestmann, John Henry, Water Finder, Department of Public Lands	..	Biloela	493
Bevan, Walter Edward, Engineer, Public Estate Improvement Section, Department of Public Lands	..	ditto	503
Bickhoff, Francis Joseph	244	Goovigen	629
Birch, Phillip	645	Biloela	462
Birse, Alexander	324	Kalpowar	345
Birse, Arthur William	332	ditto	355
Black, William James	764	Eidsvold	69
Blee, John Edward	375	Mundubbera	49
Boon, George Herbert	200	Thangool	554
Bowles, Ernest Allen	403	Kalpowar	353
Bradley, George Herbert	350	Biloela	432
Brennan, Patrick	247	Monto	256
Bridges, Ernest Henry	726	Abercorn	160
Briggs, John William	214	Jambin	612
Brock, Gerald James	298	Goovigen	644
Brown, Cyril Oswald	254	Biloela	490
Brown, James	243	Goovigen	647
Brown, Robert Edward	282	ditto	645

Appendix C—*continued.*

Name of Witness.	Approximate Area Interested in.	Place at which Evidence Given.	Page of Evidence.
	Acres.		
Bryans, Edward James	320	Waratah	397
Budahn, August	221	Goovigen	630
Bulow, August Herman	149	Mulgeldie	205
Butler, Andrew, for Butler Group, John H. Falkiner, and James Richard Wood	1,609	Jambin	606
Bysshe, Percy Shelley	7,248	Eidsvold	58
Caley, Walter	640	Abercorn	154
Calder, Robert James, Inspector, Agricultural Bank	..	Biloela	463
Campbell, John Gordon Leslie	50,000	Jambin	586
Campbell, William Blair	7,000	ditto	588
Carmody, Charles Stanislaus	373	Monto	245
Cavanagh, Bartholomew	215	ditto	295
Cavanagh, John	251	Jambin	589
Cavanagh, Patrick Joseph	247	ditto	589
Chamber of Commerce	Deputation	Monto	324
Chandler, Alfred	397	Biloela	428
Chapman, David ; also on behalf of Mulgeldie Local Producers' Association	226	Mulgeldie	197
Chapman, Harry	157	Biloela	446
Chapman, Herbert Henry	1,198	Monto	267
Chetter, Richard Edward	250	Biloela	481
Clarke, William Henry	249	ditto	470
Clewley, Archibald Josiah	1,023	Waratah	390
Cluff, Clarence James	473	Monto	248
Collingwood, Isaac Thomas	275	Kalpowar	377
Collingwood, Stanley Harold	352	Waratah	412
Collins, Robert	430	Abercorn	142
Collins, Robert William	550	ditto	141
Connolly, William	210	Thangool	555
Cook, Herbert	166	Monto	297
Cook, John Leslie	433	ditto	242
Cook, Leslie John	380	ditto	242
Cooper, James	304	Goovigen	631
Costar, John Arthur	170	Thangool	545
Costello, Frederick	640	Abercorn	150
Coulson, James	231	Jambin	584
Coulston, Alwyn	159	Mulgeldie	196
Cox, George Robert	270	Monto	294
Cuff, Charles	302	ditto	240
Cullen, John Arthur	320	Thangool	559
Cullwick, Wilfred	217	Mulgeldie	203
Currier, Michael Frederick	1,192	Abercorn	178
Daetz, Sterling Harold	6,900	ditto	129
Daft, Thomas	320	Waratah	418
Dahtler, Frederick George	575	ditto	395
Davidson, Joseph James Massey	176	Mulgeldie	217
Dellar, Charles James	178	Biloela	491
Dent, Thomas	324	Waratah	415
Dickenson, Charles	206	Jambin	596
Dicker, Albert Thomas	338	Kalpowar	374
Dingle, Roy George	3,200	Abercorn	131
Dobson, Alfred Henry	185	Goovigen	635
Docherty, Michael	355	Monto	246
Donald, Early William	643	Goovigen	636
Dougall, Andrew George	307	Waratah	414
Dougall, Roy Lewis	290	Waratah	413
Doyle, Felix Frederick	622	Eidsvold	89
Drinkwater, Harold Frank	648	ditto	75
Duncan, Horace Muir	4,040	Abercorn	134
Dunn, Thomas	361	Kalpowar	346
Edwards, Samuel	246	Jambin	602
Eggerling, Phillip Fritz	786	Mundubbera	41
Elliott, Francis David	216	Biloela	513
Elliott, Robert James, on behalf of Margaret Grace Elliott	5,836	Monto	301
Emerson, David	198	ditto	302
Emery, Jesse, also on behalf of Mulgeldie Local Producers' Association	169	Mulgeldie	197
Esposito, Salvatore, on behalf Francesco Raschella and Nicodemo Mazzone	278	Biloela	479
Evans, Rupert Sydney Allender	852	Eidsvold	71
Everett, Ernest Willie, Inspector Agricultural Bank	..	ditto	106
Falconer, John Frederick Browne	634	ditto	65
Farquharson, Frederick James	302	Biloela	457
Fisher, William Arthur	500	Waratah	424
Fleming, James Patrick	373	Biloela	450
Fleming, James William	560	ditto	452
Fleming, Michael Ambrose	330	Kalpowar	349
Fraser, John	343	Monto	266

Appendix C—*continued.*

Name of Witness.	Approximate Area Interested in.	Place at which Evidence Given.	Page of Evidence.
	Acres.		
Giles, Clifford Gorring	1,000	Biloela	448
Giles, John Victor (per Clifford Gorring Giles)	1,930	ditto	448
Gillies, John	189	Jambin	610
Gooch, Gordon Victor Ninham	350	Monto	252
Goode, Cedric Fraser	619	ditto	293
Goody, Hector Clyde	1,209	Waratah	406
Goody, Marshall	627	ditto	419
Grant, Frederick	238	Mulgeldie	193
Gray, Ashton John	196	Biloela	472
Grenier, Ernest Pannell, Land Commissioner, Gayndah	..	Eidsvold	109
Hamilton, Robert; also as Chairman, Eidsvold Shire Council	503	Eidsvold	53
	..	ditto	114
Hamilton, Reginald James	640	Abercorn	176
Hampson, Frederick Ralph	1,280	Monto	263
Hannay, Elliott William Davidson	1,650	Abercorn	136
Hanvin, Daniel Joseph	244	Monto	228
Hardwick, Francis William	159	Thangool	558
Harris, Henry Leslie	540	Monto	283
Harris, James William	444	Waratah	388
Havilah, George	220	Mulgeldie	226
Hay, Daniel Stewart	1,630	Kalpowar	357
Hayden, Henry Hyland	333	ditto	350
Heading, William Arthur	566	ditto	337
Heathwood, Robert Samuel	850	Waratah	409
Henderson, Inglis John	..	Kalpowar	371
Hickey, John Michael	197	Biloela	443
Hickey, Patrick Francis	266	Kalpowar	379
Hill, Cecil Stanley	263	Monto	251
Hobson, Herbert Edward	320	Biloela	455
Hogg, William Dickson	255	Kalpowar	378
Horn, John	917	Eidsvold	102
Houreld, Harry	295	Monto	285
Howes, Reginald James	237	Thangool	548
Hundtoft, Jacob	251	Jambin	613
Hunting, Ernest George	30	Monto	287
Hunting, Thomas Joseph	640	Kalpowar	370
Hunting, Vincent William	530	Waratah	425
Hutchinson, John	260	Mulgeldie	181
Iredale, Tom George	283	Biloela	468
Jackson, Edward Dunlop Mark	401	Waratah	404
Jackson, Elijah	304	Thangool	534
James, John Edward	302	Eidsvold	149
Jameson, John	177	Goovigen	653
Jamieson, Thomas Henry	280	Jambin	583
Jamieson Group, per E. J. Basson	719	Mulgeldie	186
Jarvis, Clarence Frederick	740	Monto	273
Jarvis, William	270	Biloela	492
Jones, Aubrey Edward	4,200	Eidsvold	104
Jones, Lemmewell	338	Mulgeldie	191
Joyce, Fitzpierce	1,280	Eidsvold	96
Kennedy, John	2,388	Abercorn	137
Keunne, Ernst August	600	Mundubbera	18
Keys, Arthur	202	Jambin	609
King, Percival Walter	618	Abercorn	151
King, Selwyn Moore	215	Goovigen	640
Kircher, Michael	714	Waratah	416
Kirkham, Ernest William	311	Jambin	580
Krause, Charles William	320	Thangool	566
Kuhnert, Karl Julius	575	Abercorn	162
Kurtz, James William	160	Thangool	556
Lawson, James Gilbert	660	Kalpowar	351
Lehr, Phillip Henry	570	ditto	376
Leonard, Herbert Cyril	345	Monto	268
Lewis, Cyril	344	Mulgeldie	215
Litzow, Adolph	311	ditto	221
Local Producers' Association	Deputation	Biloela	515
Ditto	ditto	Goovigen	656
Ditto	ditto	Jambin	615
Ditto	ditto	Kalpowar	381
Ditto (per D. Chapman and J. Emery)	ditto	Monto	309
Local Producers' Association	..	Mulgeldie	197
Lucy, Daniel James	Deputation	Thangool	570
	641	Goovigen	652

Appendix C—*continued.*

Name of Witness.	Approximate Area Interested in.	Place at which Evidence Given.	Page of Evidence.
	Acres.		
Macfarlane, Neil Archibald	289	Biloela	487
Mack, Alfred John	191	Monto	241
Malone, Denis Sylvester	438	Monto	230
Malone, Thomas	331	ditto	230
Marshall, James John	1,675	Kalpowar	356
Marshall, Rupert Oswald	239	Monto	257
Mathison, Herbert Hastings	357	ditto	269
Meagher, William	171	Jambin	600
Meharry, Andrew Stewart	335	Waratah	396
Meredith, Charles Thomas	328	Mundubbera	38
Miller, Lawrie Douglas	1,619	Monto	279
Moore, Patrick	237	ditto	288
Moore, Stephen Henry	244	ditto	304
Morante, Alfred Charles	118	ditto	238
Mouatt, Graham Buchanan	580	ditto	281
Muir, William	9,440	Mundubbera	6
Muller, Paul	395	Monto	280
Myles, David Charles	1,111	Kalpowar	375
Myles, Edward	633	ditto	335
McCallum, Robert Alexander	832	Eidsvold	87
McCarthy, Stephen	304	Thangool	562
McCord, Charles Edward Knox	25,160	Eidsvold	101
McCubbin, May Emma, for Andrew Elliott McCubbin	388	Mulgeldie	212
McGuigan, John Richard	226	Waratah	410
McInnes, John	334	Monto	276
McKenzie, Edward John	333	ditto	305
McKinnon, Peter	215	ditto	254
McLennan, William	320	Mundubbera	45
McRae, Christopher Albert	280	Biloela	476
McRae, Godfrey Francis	303	ditto	474
McRae, Francis Murdo	343	Mulgeldie	213
McRobbie, Alexander	183	Goovigen	641
Naldrett, George William	335	Monto	250
Norris, Frank	230	Goovigen	637
Oberg, Malcus William	395	Abercorn	156
O'Brien, Thomas	318	Biloela	436
O'Dwyer, Phillip	554	Abercorn	168
Ogle, James Gordon	253	Mulgeldie	189
Parker, Thomas Arthur	279	Biloela	458
Paroz, William Charles	190	ditto	439
Peachy, Burgest James	350	Monto	286
Peacock, Charles Edgar	311	Goovigen	649
Pearce, Richard	218	Jambin	598
Pearce, William	232	ditto	598
Penberthy, Bert	300	Thangool	568
Perry, Thomas Alexander	1,960	Eidsvold	98
Pershouse, Stephen Bradney	265	Jambin	603
Peters, Henry	274	Jambin	595
Pitman, Josiah Arthur	640	Biloela	480
Pope, John Sydney	207	ditto	482
Porter, Leonard Cyril	153	Goovigen	650
Power, Eric James	498	Monto	290
Power, Francis Michael	150	Mulgeldie	183
Power, James	453	Monto	290
Pownall, John Downman	16,800	Eidsvold	103
Pownall, William Thomas	650	Kalpowar	367
Preuss, Otto	189	Goovigen	638
Price, Percy	227	Jambin	611
Purvis, Henry James	..	Thangool	561
Pywell, Thomas Ashley James	410	Kalpowar	352
Quarrie, Percy Alma	206	Biloela	460
Radel, Alfred Adolf	223	Mulgeldie	209
Ralph, Joseph Heli	252	Jambin	593
Rashleigh, Francis Edward	654	Eidsvold	80
Reinke, John Frederick	230	Mundubbera	21
Rice, Arthur	590	Eidsvold	62
Rickards, Morland Hubert	2,227	Mundubbera	27
Ridgway, Nathaniel James	..	Monto	299
Ridgway, Robert John	215	ditto	299
Rigney, Edward Charles	550	Monto	277
Rigney, Thomas Patrick	505	Kalpowar	332
Rix, Frank Albert	297	Mulgeldie	204
Robertson, Norman Harold	313	Thangool	538

Appendix C—*continued.*

Name of Witness.	Approximate Area Interested in.	Place at which Evidence Given.	Page of Evidence.
	Acres.		
Rose, Valentine	313	Abercorn	172
Russell, Edward Alexander	180	Thangool	540
Russell, Leonard John	280	ditto	557
Ryan, John Valentine	215	Monto	298
Sander, Carl Johan	1,097	Kalpowar	340
Schaper, Alfred Ernest	1,012	By letter	654
Schuenemann, Ernest	305	Goovigen	626
Schunemann, Adolf	304	Thangool	565
Schuurs, Jan William Frederick	1,010	Kalpowar	342
Secker, Frederick George	332	Jambin	604
Secker, William Alfred	251	ditto	605
Shaw, James Alexander	366	Goovigen	633
Sheehan, Patrick Maurice	496	Waratah	423
Shelton, Cornelius	241	Biloela	443
Shire Council	Deputation	Eidsvold	114
Silverthorne, Duncan	331	Biloela	469
Simpson, Joseph Alexander	160	Thangool	564
Slack, Eric George	949	Abercorn	173
Smith, George James	713	ditto	169
Smith, Henry John	..	Eidsvold	83
Smith, James Osborne	1,489	ditto	94
Smith, Joseph	806	Mundubbera	24
Smith, Norman William	590	Waratah	399
Smith, William Hardidge	1,188	Mulgeldie	220
Staatz, George Carl Friederich	235	Monto	274
Steger, Charles Wilfred	351	Mulgeldie	195
Stephens, George	604	Monto	270
Sutton, Robert Stevin	256	Biloela	478
Sweet, Samuel	275	Waratah	402
Talty, John	550	Kalpowar	366
Tanzer, Arthur	540	Abercorn	163
Taylor, Harry Bernard	380	Waratah	391
Taylor, John Henry Tuke	3,536	Eidsvold	100
Thompson, William Arthur	360	Thangool	533
Thomson, Sydney, Land Ranger, Rockhampton District	..	ditto	525
Thurgar, John Edward	235	Mulgeldie	222
Towers, Alfred Henry	2,030	Abercorn	148
Traill, Thomas Fotheringhame	2,253	Abercorn	132
Tratt, William Henry	320	Monto	259
Tucker, Henry John	187	Biloela	485
Turner, David	157	Jambin	591
Turner, Morris	308	Mulgeldie	219
Tye, William Edward	900	Abercorn	146
Venn, Daniel	255	Thangool	536
Vicary, Henry	340	Mundubbera	31
Vivian, Guy	235	Biloela	456
Wallace, Victor Clarence	322	Goovigen	643
Walter, John Henry	450	Monto	260
Walton, Richard	240	ditto	234
Warren, Darcy Richard	293	Waratah	407
Watson, Thomas	188	Goovigen	623
Webb, Harry George William	463	Mulgeldie	224
Wells, Archibald James	914	ditto	216
Wells, Edward	342	Monto	252
Wells, James Underwood	315	ditto	247
Wendt, Arthur	3,736	Abercorn	145
Wendt, William Charles	488	Waratah	411
West, John	6,270	Abercorn	133
Whyte, William	435	ditto	165
Wickham, Ernest Albert	329	Goovigen	648
Willcox, Gerald Norman	280	Biloela	484
Williams, George	923	Eidsvold	85
Williams, George John	500	Waratah	408
Wilson, Wilfred	264	Jambin	601
Wood, George James	520	Waratah	400
Woodall, Michael John	177	Biloela	488
Woodbridge, Joseph	267	Kalpowar	373
Woodford, Samuel Percival	174	Mulgeldie	185
Wulf, Ernest Richard	352	Monto	261
Young, Gregory	7,000	Eidsvold	105
Zillman, Eric Wesley	2,890	Abercorn	138
Zillman, Arnold Raymond	5,339	Eidsvold	91
Zimmermann, John	309	Goovigen	639

Appendix D.

ROSEBANK RAINFALL RECORDS.

Supplied to Land Administration Board by Mr. JOSEPH BALL, of Rosebank, Kalpowar, Upper Burnett District.

YEARLY RAINFALL.

	Days.	Inches.	Points.
1908	50	35	26
1909	72	35	31
1910	70	31	15
1911	67	33	98
1912	59	24	69
1913	63	40	5
1914	65	28	59
1915	54	21	70
1916	88	37	46
1917	68	34	72
1918	63	40	11
1919	42	13	74
1920	67	31	31
1921	91	40	31
1922	57	31	2
1923	51	23	12
1924	70	42	38
1925	63	32	12
1926	51	28	28
1927	82	46	31
1928	85	45	21

DAILY RAINFALL.

1908.

Date.	Rainfall. In. Pts.	Total.
January—		
2nd	0 35	
9th	0 29	
10th	0 78	
11th	1 3	
29th	1 60	
30th	0 40	
	——	6 days 4 in. 45 pts.
February—		
10th	1 67	
11th	1 59	
12th	2 26	
13th	0 20	
19th	0 25	
21st	3 84	
23rd	0 11	
24th	0 34	
27th	0 16	
28th	0 32	
	——	10 days 10 in. 74 pts.
March—		
2nd	0 85	
4th	0 64	
5th	2 2	
6th	0 54	
13th	0 95	
14th	1 24	
15th	1 9	
16th	0 79	
17th	0 15	
	——	9 days 8 in. 27 pts.
April—		
3rd	1 15	
4th	0 35	
11th	0 96	
	——	3 days 2 in. 46 pts.
May—		
19th	0 80	1 day 0 in. 80 pts.
June—		
21st	0 40	1 day 0 in. 40 pts.
July—		
2nd	0 13	
10th	0 48	
	——	2 days 0 in. 61 pts.
August—		
2nd	0 78	
6th	0 45	
23rd	0 11	
	——	3 days 1 in. 34 pts.
September—		
2nd	0 3	
6th	0 48	
13th	0 5	
	——	3 days 0 in. 56 pts.
October—		
11th	0 34	
12th	0 43	
13th	0 17	
18th	0 78	
	——	4 days 1 in. 72 pts.
November—		
9th	1 60	
28th	1 39	
	——	2 days 2 in. 99 pts.
December—		
1st	0 4	
10th	0 13	
11th	0 1	
12th	0 3	
26th	0 56	
27th	0 15	
	——	6 days 0 in. 92 pts.
Total for year 1908 ..		50 days 35 in. 26 pts.

1909.

January—		
6th	0 38	
16th	0 89	
17th	1 4	
18th	1 91	
19th	0 57	
20th	2 22	
21st	0 85	
23rd	0 95	
	——	8 days 8 in. 81 pts.
February—		
2nd	0 33	
3rd	0 19	
22nd	0 12	
23rd	1 33	
24th	0 3	
26th	0 36	
	——	6 days 2 in. 36 pts.
March—		
2nd	0 59	
4th	0 27	
17th	0 73	
21st	0 56	
28th	1 32	
	——	5 days 3 in. 47 pts.
April—		
3rd	0 14	
7th	0 22	
20th	0 33	
21st	0 44	
22nd	0 5	
27th	0 49	
	——	6 days 1 in. 67 pts.
May—		
25th	0 23	
31st	0 8	
	——	2 days 0 in. 31 pts

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1909.

Date.	Rainfall. In. Pts.	Total.
June—		
1st	0 10	
3rd	0 22	
7th	0 11	
10th	0 38	
26th	0 9	
27th	0 4	
29th	0 26	
30th	0 72	
	——	8 days 1 in. 92 pts.
July—		
1st	0 12	
2nd	0 60	
8th	0 19	
16th	1 4	
17th	0 3	
26th	0 18	
	——	6 days 2 in. 16 pts.
August—		
7th	0 31	
9th	0 11	
15th	1 0	
17th	0 27	
22nd	0 15	
24th	0 10	
25th	0 63	
26th	1 0	
28th	0 2	
30th	0 6	
	——	10 days 3 in. 65 pts.
September—		
3rd	0 5	
8th	0 70	
16th	0 8	
22nd	0 72	
	——	4 days 1 in. 55 pts.
October—		
20th	0 29	
22nd	0 77	
26th	1 45	
27th	1 30	
30th	0 83	
	——	5 days 4 in. 64 pts.
November—		
18th	0 60	
29th	0 81	
	——	2 days 1 in. 41 pts.
December—		
1st	0 24	
5th	0 40	
16th	0 52	
17th	0 14	
18th	0 22	
21st	0 10	
23rd	0 26	
28th	0 8	
29th	0 79	
30th	0 61	
	——	10 days 3 in. 36 pts.
Total for year 1909 ..		72 days 35 in. 31 pts.

1910.

Date.	Rainfall. In. Pts.	Total.
January—		
13th	0 27	
14th	1 71	
15th	0 35	
16th	0 36	
18th	0 43	
19th	0 70	
21st	0 16	
22nd	0 27	
23rd	0 31	
30th	1 26	
31st	1 3	
	——	11 days 6 in. 85 pts.
February—		
1st	0 10	
2nd	0 13	
10th	0 11	
12th	0 19	
16th	0 8	
20th	0 11	
21st	0 3	
22nd	0 2	
23rd	0 26	
	——	9 days 1 in. 3 pts.
March—		
6th	0 10	
7th	0 27	
10th	0 22	
14th	4 62	
17th	0 29	
18th	0 40	
19th	0 30	
20th	2 29	
24th	0 13	
	——	9 days 8 in. 62 pts.
April—		
5th	0 37	
25th	0 16	
	——	2 days 0 in. 53 pts.
May—		
17th	0 7	1 day 0 in. 7 pts.
June—		
1st	1 85	
2nd	0 90	
12th	0 6	
17th	0 18	
21st	0 10	
23rd	0 69	
24th	0 16	
25th	0 24	
	——	8 days 4 in. 18 pts.
July—		
6th	0 48	
7th	0 80	
16th	0 7	
17th	0 54	
18th	0 36	
	——	5 days 2 in. 25 pts.
August—		
2nd	0 23	
31st	0 2	
	——	2 days 0 in. 25 pts.
September—		
14th	0 72	
15th	0 3	
17th	0 19	
	——	3 days 0 in. 94 pts.
October—		
7th	0 2	
8th	0 7	
9th	1 9	
22nd	0 2	
31st	0 13	
	——	5 days 1 in. 33 pts.
November—		
6th	0 49	
7th	0 8	
11th	0 18	
22nd	0 25	
26th	0 90	
30th	0 24	
	——	6 days 2 in. 14 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

Date.	Rainfall. In. Pts.	Total.
1910.		
December—		
5th	0 87	
6th	0 36	
8th	0 50	
9th	0 6	
10th	0 28	
11th	0 26	
12th	0 22	
13th	0 20	
23rd	0 21	
	——	9 days 2 in. 96 pts.
Total for year 1910 ..		70 days 31 in. 15 pts.
1911.		
January—		
4th	0 37	
10th	0 79	
11th	1 35	
12th	2 31	
13th	0 53	
14th	0 22	
17th	0 14	
18th	0 46	
19th	0 53	
20th	0 35	
22nd	0 3	
24th	0 9	
26th	0 65	
27th	0 52	
28th	1 15	
29th	1 27	
30th	0 13	
31st	0 68	
	——	18 days 11 in. 57 pts.
February—		
1st	0 25	
2nd	0 6	
3rd	1 11	
4th	2 81	
5th	0 71	
6th	0 17	
7th	0 5	
8th	0 7	
12th	0 80	
13th	0 74	
14th	0 10	
22nd	0 32	
23rd	0 19	
	——	13 days 7 in. 38 pts.
March—		
5th	0 24	
7th	0 10	
21st	0 49	
24th	0 56	
25th	1 45	
26th	0 38	
	——	6 days 3 in. 22 pts.
April—		
13th	0 7	
17th	0 75	
18th	0 11	
	——	3 days 0 in. 93 pts.
May—		
16th	0 12	
19th	0 10	
21st	0 8	
	——	3 days 0 in. 30 pts.
June—	Nil.	
July—		
7th	0 20	
15th	0 13	
19th	0 25	
	——	3 days 0 in. 58 pts.
August—		
21st	0 34	
22nd	0 61	
23rd	0 64	
	——	3 days 1 in. 59 pts.
September—		
23rd	1 0	
30th	0 6	
	——	2 days 1 in. 6 pts.
October—		
1st	0 50	
2nd	0 6	
6th	0 29	
16th	0 4	
19th	0 57	
20th	0 3	
25th	0 22	
29th	0 15	
	——	8 days 1 in. 86 pts.
November—		
14th	0 30	
17th	0 24	
	——	2 days 0 in. 54 pts.
December—		
2nd	0 6	
7th	0 89	
9th	0 55	
11th	0 48	
17th	0 71	
27th	2 26	
	——	6 days 4 in. 95 pts.
Total for year 1911 ..		67 days 33 in. 98 pts.
1912.		
January—		
1st	0 65	
2nd	0 34	
5th	1 31	
6th	0 13	
18th	0 44	
28th	0 18	
	——	6 days 3 in. 5 pts.
February—		
9th	0 23	
10th	0 9	
11th	0 19	
12th	0 10	
14th	0 4	
15th	0 18	
	——	6 days 0 in. 83 pts.
March—		
1st	1 25	
2nd	0 7	
3rd	0 12	
4th	0 5	
14th	0 5	
15th	0 23	
20th	0 22	
21st	0 7	
27th	0 27	
	——	9 days 2 in. 13 pts.
April—		
9th	0 19	
10th	0 4	
	——	2 days 0 in. 23 pts.
May—		
5th	0 31	
6th	1 5	
29th	0 5	
	——	3 days 1 in. 41 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1912.

Date.	Rainfall. In. Pts.	Total.
June—		
5th	0 2	
9th	2 75	
10th	0 52	
11th	0 46	
12th	0 51	
23rd	0 55	
24th	1 91	
27th	0 6	
28th	0 31	
29th	0 3	
	——	10 days 7 in. 12 pts.
July—		
2nd	0 27	
3rd	0 12	
4th	0 62	
14th	1 35	
	——	4 days 2 in. 36 pts.
August—		
4th	0 15	
11th	0 10	
14th	0 15	
	——	3 days 0 in. 40 pts.
September—		
19th	0 10	1 day 0 in. 10 pts.
October—		
13th	0 79	
21st	0 5	
23rd	0 3	
24th	0 58	
25th	0 35	
26th	0 10	
27th	0 30	
	——	7 days 2 in. 20 pts.
November—		
9th	0 75	
21st	0 47	
23rd	0 18	
26th	0 33	
	——	4 days 1 in. 73 pts.
December—		
6th	0 22	
11th	0 29	
21st	0 7	
31st	2 55	
	——	4 days 3 in. 13 pts.
Total for year 1912 ..		59 days 24 in. 69 pts.

1913.

Date.	Rainfall. In. Pts.	Total.
January—		
1st	0 96	
2nd	0 25	
5th	0 10	
8th	2 83	
9th	0 9	
14th	0 25	
15th	3 42	
16th	4 29	
17th	1 93	
18th	1 18	
21st	3 14	
22nd	0 11	
	——	12 days 18 in. 55 pts.
February—		
2nd	0 51	
8th	0 22	
10th	0 17	
11th	0 25	
18th	2 2	
21st	0 8	
23rd	0 39	
25th	0 32	
26th	0 8	
27th	0 10	
28th	0 8	
	——	11 days 4 in. 22 pts.
March—		
3rd	0 13	
8th	0 24	
13th	0 96	
	——	3 days 1 in. 33 pts.
April—		
6th	0 86	
12th	0 54	
	——	2 days 1 in. 40 pts.
May—		
11th	0 25	
12th	0 44	
13th	0 42	
23rd	0 25	
25th	0 19	
30th	0 31	
31st	0 62	
	——	7 days 2 in. 48 pts.
June—		
21st	0 54	
22nd	1 30	
26th	0 45	
29th	0 67	
	——	4 days 2 in. 96 pts.
July—		
4th	0 14	
14th	1 22	
27th	0 17	
28th	0 8	
	——	4 days 1 in. 61 pts.
August—	Nil.	
September—		
5th	0 11	
21st	0 38	
22nd	0 9	
27th	1 27	
28th	0 77	
	——	5 days 2 in. 62 pts.
October—	Nil.	
November—		
1st	0 4	
3rd	0 30	
15th	0 60	
22nd	0 10	
23rd	0 13	
	——	5 days 1 in. 17 pts.
December—		
5th	0 10	
11th	0 30	
16th	0 5	
17th	0 13	
20th	1 93	
21st	0 14	
22nd	0 30	
23rd	0 42	
24th	0 25	
27th	0 9	
	——	10 days 3 in. 71 pts.
Total for year 1913 ..		63 days 40 in. 5 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1914.

Date.	Rainfall. In. Pts.	Total.
January—		
15th	0 20	
18th	0 44	
19th	0 93	
21st	0 55	
24th	0 21	
25th	0 24	
	——	6 days 2 in. 57 pts.
February—		
23rd	1 58	
24th	0 13	
26th	0 21	
27th	0 16	
28th	0 9	
	——	5 days 2 in. 17 pts.
March—		
1st	1 56	
9th	0 61	
10th	0 47	
11th	0 9	
25th	1 70	
26th	0 30	
27th	0 21	
29th	0 40	
30th	0 40	
	——	9 days 5 in. 74 pts.
April—		
9th	1 50	
13th	0 34	
15th	0 47	
22nd	0 36	
23rd	0 40	
	——	5 days 3 in. 7 pts.
May—		
3rd	0 6	
22nd	0 26	
24th	0 9	
	——	3 days 0 in. 41 pts.
June—		
5th	0 35	
7th	1 54	
14th	0 24	
16th	0 20	
17th	0 77	
23rd	0 33	
25th	0 72	
26th	0 71	
30th	0 7	
	——	9 days 4 in. 93 pts.
July—		
2nd	0 9	
13th	0 13	
27th	0 27	
30th	0 57	
	——	4 days 1 in. 6 pts.
August—		
1st	0 9	
2nd	0 11	
	——	2 days 0 in. 20 pts.
September—		
6th	0 4	
9th	0 27	
10th	0 2	
13th	0 22	
	——	4 days 0 in. 55 pts.
October—		
6th	0 5	
7th	0 21	
8th	0 58	
9th	1 54	
10th	0 8	
11th	0 7	
12th	0 40	
17th	0 11	
18th	0 33	
	——	9 days 3 in. 37 pts.
November—		
29th	0 5	1 day 0 in. 5 pts.
December—		
7th	0 34	
17th	0 51	
23rd	0 85	
24th	0 95	
28th	0 48	
29th	0 28	
30th	0 8	
31st	0 98	
	——	8 days 4 in. 47 pts.
Total for year 1914 ..		65 days 28 in. 59 pts.

1915.

January—		
1st	0 28	
5th	0 98	
7th	1 6	
13th	0 3	
17th	0 9	
18th	0 52	
19th	0 4	
	——	7 days 3 in. 0 pts.
February—		
5th	0 20	
6th	0 35	
8th	0 30	
9th	3 15	
17th	0 5	
18th	0 60	
19th	0 15	
20th	0 2	
21st	0 18	
23rd	0 19	
26th	0 68	
	——	11 days 5 in. 87 pts.
March—		
	Nil.	
April—		
5th	0 12	
9th	0 2	
11th	0 79	
12th	0 40	
13th	0 10	
14th	0 37	
16th	0 5	
23rd	1 18	
	——	8 days 3 in. 3 pts.
May—		
2nd	0 8	
5th	0 39	
15th	0 14	
16th	0 71	
	——	4 days 1 in. 32 pts.
June—		
8th	0 47	1 day 0 in. 47 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1915.

Date.	Rainfall. In. Pts.	Total.
July—		
2nd	0 24	
9th	0 30	
15th	0 20	
17th	0 60	
28th	0 5	
31st	0 4	
		6 days 1 in. 43 pts.
August—		
1st	0 58	
5th	0 37	
24th	0 5	
		3 days 1 in. 0 pts.
September—		
17th	0 27	1 day 0 in. 27 pts.
October—		
20th	0 47	
21st	0 5	
25th	0 18	
		3 days 0 in. 70 pts.
November—		
9th	0 13	
11th	0 4	
26th	0 41	
28th	0 13	
30th	0 97	
		5 days 1 in. 68 pts.
December—		
11th	0 72	
16th	1 13	
20th	0 10	
28th	0 90	
29th	0 8	
		5 days 2 in. 93 pts.
Total for year 1915		54 days 21 in. 70 pts.

1916.

Date.	Rainfall. In. Pts.	Total.
January—		
2nd	0 3	
3rd	0 23	
4th	0 6	
23rd	0 24	
29th	0 5	
30th	0 24	
31st	0 10	
		7 days 0 in. 95 pts.
February—		
3rd	0 70	
5th	0 28	
6th	1 40	
22nd	0 8	
23rd	0 22	
27th	1 0	
28th	0 48	
		7 days 4 in. 16 pts.
March—		
1st	0 35	
3rd	0 38	
4th	0 10	
5th	0 6	
14th	0 10	
21st	1 60	
29th	0 35	
30th	0 27	
		8 days 3 in. 21 pts.
April—		
4th	0 43	
6th	0 45	
9th	0 4	
11th	0 25	
12th	0 6	
13th	0 82	
21st	0 4	
25th	0 13	
30th	0 6	
		9 days 2 in. 28 pts.
May—		
3rd	0 46	
6th	0 73	
7th	0 30	
		3 days 1 in. 49 pts.
June—		
2nd	0 20	
9th	0 4	
12th	0 4	
17th	0 40	
21st	0 54	
28th	0 72	
		6 days 1 in. 94 pts.
July—		
12th	0 13	
20th	2 7	
21st	0 50	
29th	0 9	
30th	0 25	
31st	0 38	
		6 days 3 in. 42 pts.
August—		
1st	0 17	
11th	0 6	
16th	0 72	
20th	0 74	
30th	0 11	
31st	0 27	
		6 days 2 in. 7 pts.
September—		
2nd	0 45	
3rd	0 35	
5th	0 6	
9th	0 33	
21st	0 15	
22nd	0 11	
25th	0 23	
		7 days 1 in. 68 pts.
October—		
5th	0 4	
6th	0 4	
18th	1 4	
19th	1 67	
23rd	0 2	
26th	0 71	
28th	3 77	
		7 days 7 in. 29 pts.
November—		
1st	0 46	
2nd	0 47	
3rd	0 34	
5th	0 6	
13th	0 36	
14th	0 5	
24th	0 32	
28th	0 44	
29th	0 21	
30th	1 20	
		10 days 3 in. 91 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

Date.	Rainfall. In. Pts.	Total.
1916.		
December—		
3rd	0 24	
5th	2 0	
6th	0 25	
7th	0 43	
14th	0 70	
24th	0 3	
25th	0 7	
26th	0 8	
27th	0 76	
28th	0 18	
29th	0 25	
31st	0 7	
	——	12 days 5 in. 6 pts.
Total for year 1916 ..		88 days 37 in. 46 pts.
1917.		
January—		
5th	0 3	
14th	0 29	
15th	0 90	
16th	0 92	
17th	0 3	
19th	0 9	
20th	0 2	
21st	0 5	
24th	0 80	
25th	0 98	
	——	10 days 4 in. 11 pts.
February—		
1st	0 81	
2nd	1 53	
3rd	0 77	
4th	1 32	
5th	0 16	
10th	0 15	
11th	0 75	
	——	7 days 5 in. 49 pts.
March—		
2nd	0 33	
3rd	0 5	
5th	0 73	
6th	0 21	
7th	0 70	
8th	0 34	
9th	0 40	
12th	0 18	
17th	0 45	
22nd	0 4	
23rd	0 14	
	——	11 days 3 in. 57 pts.
April—		
7th	0 59	
9th	1 40	
22nd	0 20	
30th	0 9	
	——	4 days 2 in. 28 pts.
May—		
2nd	0 12	
3rd	0 43	
	——	2 days 0 in. 55 pts.
June—		
8th	0 17	1 day 0 in. 17 pts.
July—		
12th	0 18	1 day 0 in. 18 pts.
August—		
5th	0 24	
6th	0 54	
27th	0 50	
28th	0 44	
29th	0 10	
	——	5 days 1 in. 82 pts.
September—		
9th	0 5	
16th	0 34	
18th	0 36	
19th	0 20	
24th	0 47	
25th	0 86	
	——	6 days 2 in. 28 pts.
October—		
1st	0 19	
7th	1 15	
8th	0 8	
24th	0 7	
	——	4 days 1 in. 49 pts.
November—		
3rd	0 6	
4th	3 0	
5th	0 4	
8th	2 18	
9th	1 15	
10th	0 42	
16th	0 77	
18th	0 55	
22nd	0 28	
23rd	1 33	
	——	10 days 9 in. 78 pts.
December—		
1st	0 6	
2nd	0 46	
9th	0 12	
12th	1 17	
20th	0 16	
21st	0 28	
24th	0 75	
	——	7 days 3 in. 0 pts.
Total for year 1917 ..		68 days 34 in. 72 pts.
1918.		
January—		
3rd	0 43	
4th	1 3	
5th	0 7	
9th	0 9	
10th	0 42	
11th	1 52	
12th	3 70	
16th	3 85	
21st	1 28	
22nd	7 11	
23rd	1 77	
24th	0 12	
29th	0 90	
30th	0 35	
31st	0 43	
	——	15 days 23 in. 7 pts.
February—		
1st	0 31	
2nd	0 88	
6th	0 10	
7th	0 5	
8th	0 5	
11th	0 88	
12th	0 86	
13th	0 14	
20th	0 8	
24th	0 90	
25th	0 87	
28th	0 31	
	——	12 days 5 in. 43 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

Date.	Rainfall. In. Pts.	Total.
1918.		
March—		
1st	0 13	
2nd	0 32	
3rd	0 57	
4th	0 23	
22nd	0 50	
23rd	0 20	
24th	0 18	
28th	0 70	
	——	8 days 2 in. 83 pts.
April—		
8th	0 31	
23rd	0 22	
24th	0 44	
25th	1 64	
26th	0 86	
27th	0 9	
	——	6 days 3 in. 56 pts.
May—		
8th	0 30	
11th	0 3	
12th	0 16	
17th	0 27	
	——	4 days 0 in. 76 pts.
June—	Nil.	
July—		
25th	0 4	1 day 0 in. 4 pts.
August—		
5th	0 42	
6th	0 21	
7th	0 6	
24th	0 4	
31st	0 4	
	——	5 days 0 in. 77 pts.
September—		
5th	0 48	1 day 0 in. 48 pts.
October—		
11th	0 13	1 day 0 in. 13 pts.
November—		
1st	0 41	
16th	0 5	
19th	0 9	
20th	0 43	
21st	0 19	
	——	5 days 1 in. 17 pts.
December—		
18th	0 60	
19th	0 27	
20th	0 18	
26th	0 17	
27th	0 65	
	——	5 days 1 in. 87 pts.
Total for year 1918 ..		63 days 40 in. 11 pts.
1919.		
January—		
3rd	0 3	
15th	0 42	
16th	0 37	
18th	0 24	
30th	0 50	
	——	5 days 1 in. 56 pts.
February—		
13th	0 14	
14th	0 25	
18th	0 11	
20th	0 2	
21st	1 65	
	——	5 days 2 in. 17 pts.
March—		
1st	0 59	
2nd	0 80	
3rd	0 55	
6th	0 3	
27th	0 50	
28th	0 50	
29th	0 14	
31st	0 8	
	——	8 days 3 in. 19 pts.
April—		
12th	0 8	
24th	1 32	
25th	0 8	
26th	0 9	
	——	4 days 1 in. 57 pts.
May—		
3rd	0 3	
5th	0 47	
6th	0 35	
7th	0 8	
8th	0 5	
9th	0 13	
11th	0 9	
21st	0 26	
22nd	0 68	
	——	9 days 2 in. 14 pts.
June—	Nil.	
July—	Nil.	
August—		
26th	0 61	
27th	0 4	
	——	2 days 0 in. 65 pts.
September—	Nil.	
October—		
9th	0 9	
16th	0 75	
17th	0 30	
22nd	0 39	
28th	0 50	
	——	5 days 2 in. 3 pts.
November—		
23rd	0 30	1 day 0 in. 30 pts.
December—		
4th	0 5	
16th	0 3	
30th	0 5	
	——	3 days 0 in. 13 pts.
Total for year 1919 ..		42 days 13 in. 74 pts.
1920.		
January—		
2nd	4 57	
3rd	0 4	
4th	1 7	
5th	0 24	
7th	0 25	
8th	0 52	
9th	0 68	
11th	0 83	
20th	0 33	
21st	0 61	
22nd	0 8	
	——	11 days 9 in. 22 pts.
February—		
7th	0 31	1 day 0 in. 31 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1920.

Date.	Rainfall. In. Pts.	Total.
March—		
2nd	0 64	
3rd	0 36	
4th	0 20	
5th	0 6	
9th	0 28	
30th	0 4	
31st	0 5	
	——	7 days 1 in. 63 pts.
April—		
10th	0 3	
16th	0 5	
19th	0 13	
21st	0 6	
22nd	0 31	
23rd	0 3	
29th	0 7	
	——	7 days 0 in. 68 pts.
May—		
8th	0 75	
9th	0 30	
16th	0 69	
17th	0 65	
22nd	0 5	
23rd	0 45	
25th	0 16	
26th	0 12	
28th	0 4	
	——	9 days 3 in. 21 pts.
June—		
2nd	0 3	
3rd	0 14	
13th	1 76	
14th	0 11	
28th	0 6	
	——	5 days 2 in. 10 pts.
July—		
3rd	0 10	
4th	0 12	
5th	0 64	
15th	0 40	
16th	0 2	
	——	5 days 1 in. 28 pts.
August—		
1st	0 62	
29th	0 25	
30th	0 71	
	——	3 days 1 in. 58 pts.
September—		
11th	0 37	
12th	0 8	
16th	0 75	
18th	0 14	
	——	4 days 1 in. 34 pts.
October—		
16th	0 19	
17th	1 57	
18th	0 36	
21st	1 26	
22nd	0 74	
24th	0 23	
	——	6 days 4 in. 35 pts.
November—		
17th	0 22	
18th	0 61	
22nd	1 31	
27th	0 21	
28th	0 12	
	——	5 days 2 in. 47 pts.
December—		
3rd	0 52	
7th	1 17	
8th	1 31	
9th	0 14	
	——	4 days 3 in. 14 pts.
Total for year 1920		67 days 31 in. 31 pts.

1921.

Date.	Rainfall. In. Pts.	Total.
January—		
8th	0 15	
14th	0 90	
15th	1 13	
16th	0 69	
17th	2 9	
18th	0 25	
19th	0 18	
24th	0 5	
28th	0 9	
29th	0 8	
30th	0 17	
31st	0 12	
	——	12 days 5 in. 90 pts.
February—		
7th	1 14	
8th	0 16	
15th	0 3	
20th	0 20	
21st	0 7	
24th	0 8	
28th	0 8	
	——	7 days 1 in. 76 pts.
March—		
5th	0 7	
7th	0 67	
8th	0 18	
9th	0 25	
10th	0 40	
11th	0 11	
12th	0 6	
13th	0 6	
14th	0 8	
30th	0 38	
31st	0 18	
	——	11 days 2 in. 44 pts.
April—		
1st	0 10	
2nd	0 8	
3rd	0 3	
4th	0 11	
6th	0 90	
12th	0 14	
15th	0 3	
16th	0 5	
17th	0 7	
29th	0 3	
30th	0 5	
	——	11 days 1 in. 59 pts.
May—		
2nd	0 16	
6th	0 7	
16th	0 95	
21st	0 48	
25th	0 4	
	——	5 days 1 in. 70 pts.
June—		
5th	0 25	
9th	1 20	
10th	2 14	
11th	1 80	
13th	0 9	
24th	0 7	
26th	0 20	
30th	0 17	
	——	8 days 5 in. 92 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1921.

Date.	Rainfall. In. Pts.	Total.
July—		
1st	2 0	
4th	0 22	
9th	0 5	
11th	0 15	
12th	0 7	
20th	0 5	
21st	0 8	
22nd	0 26	
	——	8 days 2 in. 88 pts.
August—		
17th	0 68	
28th	0 80	
30th	0 6	
31st	0 47	
	——	4 days 2 in. 1 pt.
September—		
5th	0 20	
7th	0 18	
8th	0 4	
9th	0 5	
15th	0 9	
	——	5 days 0 in. 56 pts.
October—		
2nd	0 36	
10th	0 13	
11th	0 10	
12th	0 41	
15th	0 52	
23rd	0 9	
	——	6 days 1 in. 61 pts.
November—		
14th	0 90	
21st	0 13	
28th	0 4	
29th	1 11	
30th	0 14	
	——	5 days 2 in. 32 pts.
December—		
11th	0 36	
16th	0 35	
25th	0 8	
26th	1 3	
27th	3 40	
28th	1 96	
29th	1 72	
30th	1 98	
31st	0 74	
	——	9 days 11 in. 62 pts.
Total for year 1921 ..		91 days 40 in. 31 pts.

1922.

Date.	Rainfall. In. Pts.	Total.
January—		
1st	0 81	
6th	0 9	
7th	0 70	
9th	0 55	
15th	0 31	
16th	0 23	
17th	0 3	
22nd	0 32	
30th	0 22	
31st	3 52	
	——	10 days 6 in. 78 pts.
February—		
1st	0 14	
2nd	2 74	
3rd	0 23	
4th	1 69	
5th	0 72	
9th	0 43	
10th	0 8	
20th	0 22	
27th	0 92	
28th	0 12	
	——	10 days 7 in. 29 pts.
March—		
1st	0 45	1 day 0 in. 45 pts.
April—		
17th	0 15	1 day 0 in. 15 pts.
May—		
22nd	0 21	
29th	0 33	
	——	2 days 0 in. 54 pts.
June—		
11th	0 50	
12th	0 86	
19th	0 9	
21st	0 7	
29th	1 18	
30th	0 2	
	——	6 days 2 in. 72 pts.
July—		
8th	0 76	
9th	1 24	
13th	0 4	
16th	0 6	
	——	4 days 2 in. 10 pts.
August—		
23rd	0 67	
29th	0 28	
	——	2 days 0 in. 95 pts.
September—		
13th	0 4	
21st	0 11	
	——	2 days 0 in. 15 pts.
October—		
22nd	0 15	
25th	0 53	
	——	2 days 0 in. 68 pts.
November—		
17th	0 15	
20th	0 62	
21st	0 4	
26th	2 83	
27th	0 9	
	——	5 days 3 in. 73 pts.
December—		
8th	0 12	
9th	0 12	
10th	0 5	
14th	0 11	
15th	1 38	
16th	0 35	
18th	0 10	
19th	1 50	
20th	0 22	
21st	0 9	
22nd	1 31	
26th	0 13	
	——	12 days 5 in. 48 pts.
Total for year 1922 ..		57 days 31 in. 2 pts.

1923.

Date.	Rainfall. In. Pts.	Total.
January—		
2nd	0 3	
3rd	0 81	
7th	0 65	
8th	0 13	
9th	0 38	
10th	0 24	
11th	0 95	
12th	0 40	
26th	1 26	
	——	9 days 4 in. 85 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1923.

Date.	Rainfall. In. Pts.	Total.
February—		
3rd	0 49	
11th	0 11	
		2 days 0 in. 60 pts.
March—		
2nd	0 60	
3rd	0 43	
		2 days 1 in. 3 pts.
April—		
10th	0 5	
11th	2 49	
16th	0 4	
17th	0 3	
24th	0 9	
25th	0 21	
27th	1 90	
		7 days 4 in. 81 pts.
May—	Nil.	
June—		
4th	1 55	
5th	1 84	
25th	0 40	
		3 days 3 in. 79 pts.
July—		
1st	0 28	
27th	0 36	
28th	0 28	
		3 days 0 in. 92 pts.
August—		
20th	0 30	1 day 0 in. 30 pts.
September—		
4th	0 53	
5th	0 37	
		2 days 0 in. 90 pts.
October—		
18th	0 5	
21st	0 4	
31st	0 19	
		3 days 0 in. 28 pts.
November—		
1st	0 18	
2nd	0 5	
4th	0 6	
9th	0 60	
13th	0 27	
15th	0 3	
		6 days 1 in. 19 pts
December—		
1st	1 10	
2nd	0 17	
4th	0 30	
5th	0 4	
8th	0 11	
12th	0 8	
15th	0 3	
21st	0 6	
22nd	1 74	
23rd	0 5	
26th	0 53	
27th	0 23	
29th	0 1	
		13 days 4 in. 45 pts.
Total for year 1923 ..		51 days 23 in. 12 pts.

1924.

Date.	Rainfall. In. Pts.	Total.
January—		
22nd	0 27	
23rd	0 4	
30th	3 0	
		3 days 3 in. 31 pts.
February—		
1st	0 30	
5th	0 25	
6th	0 8	
8th	0 44	
11th	0 40	
12th	0 38	
14th	0 10	
15th	1 23	
16th	0 73	
18th	0 7	
19th	0 18	
20th	0 38	
22nd	1 21	
		13 days 5 in. 75 pts.
March—		
6th	0 19	
7th	0 71	
8th	1 61	
9th	0 7	
14th	0 16	
23rd	0 10	
25th	0 47	
28th	1 39	
		8 days 4 in. 70 pts.
April—		
3rd	0 50	
7th	0 12	
8th	0 23	
9th	0 34	
10th	1 60	
		5 days 2 in. 79 pts.
May—	Nil.	
June—		
11th	1 30	
12th	0 12	
13th	0 3	
		3 days 1 in. 45 pts.
July—		
6th	0 2	
8th	0 35	
9th	3 61	
10th	0 30	
11th	0 24	
12th	0 3	
22nd	0 79	
23rd	0 3	
24th	0 10	
25th	0 27	
		10 days 5 in. 74 pts.
August—		
13th	0 18	
29th	0 33	
30th	0 44	
31st	0 6	
		4 days 1 in. 1 pt.
September—		
25th	0 22	
29th	1 37	
		2 days 1 in. 59 pts.
October—		
6th	0 68	
20th	0 23	
21st	0 87	
22nd	0 40	
31st	0 22	
		5 days 2 in. 40 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

Date.	Rainfall. In. Pts.	Total.
1924.		
November—		
1st	0 63	
2nd	2 60	
4th	0 30	
6th	0 60	
8th	0 16	
9th	2 63	
12th	0 50	
13th	1 25	
20th	0 18	
24th	0 70	
	——	10 days 9 in. 55 pts.
December—		
3rd	0 40	
7th	0 12	
17th	1 0	
18th	0 20	
19th	0 37	
20th	0 40	
30th	1 60	
	——	7 days 4 in. 9 pts.
Total for year 1924 ..		70 days 42 in. 38 pts.
1925.		
January—		
5th	0 47	
7th	0 53	
8th	0 27	
21st	1 40	
22nd	0 15	
23rd	0 12	
24th	1 34	
31st	1 20	
	——	8 days 5 in. 48 pts.
February—		
1st	0 7	
2nd	0 4	
7th	0 6	
23rd	2 40	
26th	1 12	
27th	0 33	
28th	0 60	
	——	7 days 4 in. 62 pts.
March—		
5th	0 29	
12th	1 3	
17th	0 28	
18th	0 9	
20th	0 5	
21st	0 4	
24th	0 45	
29th	0 23	
30th	0 25	
31st	0 38	
	——	10 days 3 in. 9 pts.
April—		
1st	0 21	
14th	0 37	
	——	2 days 0 in. 58 pts.
May—		
1st	0 14	
4th	0 5	
18th	0 15	
26th	0 73	
28th	0 8	
	——	5 days 1 in. 15 pts.
June—		
13th	0 3	
16th	0 11	
19th	3 0	
20th	2 20	
22nd	0 6	
23rd	0 7	
	——	6 days 5 in. 47 pts.
July—		
4th	0 6	1 day 0 in. 6 pts.
August—		
9th	0 50	
10th	0 10	
30th	0 37	
31st	0 33	
	——	4 days 1 in. 30 pts.
September—		
4th	0 4	
16th	0 58	
17th	0 32	
24th	0 14	
	——	4 days 1 in. 8 pts.
October—	Nil.	
November—		
2nd	0 27	
4th	0 23	
8th	1 91	
11th	0 15	
13th	0 7	
14th	0 22	
	——	6 days 2 in. 85 pts.
December—		
1st	0 7	
13th	0 38	
15th	0 84	
16th	0 19	
17th	0 7	
24th	0 73	
25th	1 28	
29th	1 24	
30th	0 46	
31st	1 18	
	——	10 days 6 in. 44 pts.
Total for year 1925 ..		63 days 32 in. 12 pts.
1926.		
January—		
1st	0 48	
3rd	0 15	
4th	0 80	
5th	0 72	
6th	0 21	
8th	0 41	
20th	0 10	
	——	7 days 2 in. 87 pts.
February—		
10th	0 5	
11th	0 79	
	——	2 days 0 in. 84 pts.
March—		
18th	0 18	
21st	0 24	
25th	0 46	
	——	3 days 0 in. 88 pts.
April—		
3rd	0 11	
5th	0 11	
6th	0 9	
8th	0 31	
	——	4 days 0 in. 62 pts.
May—		
10th	0 17	
14th	0 33	
15th	0 6	
16th	0 21	
17th	6 69	
28th	0 21	
	——	6 days 7 in. 67 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1926.

Date.	Rainfall. In. Pts.	Total.
June—		
7th	0 72	
20th	0 21	
22nd	0 8	
23rd	0 52	
24th	0 19	
25th	0 8	
	——	6 days 1 in. 80 pts.
July—		
8th	0 22	1 day 0 in. 22 pts.
August—		
	Nil.	
September—		
7th	0 34	
9th	0 7	
17th	0 7	
20th	0 3	
26th	0 13	
27th	1 10	
	——	6 days 1 in. 74 pts.
October—		
15th	0 33	1 day 0 in. 33 pts.
November—		
16th	0 44	
25th	0 50	
	——	2 days 0 in. 94 pts.
December—		
3rd	1 7	
7th	0 25	
8th	0 13	
13th	0 15	
14th	0 31	
15th	0 94	
16th	1 7	
17th	0 30	
20th	1 54	
21st	2 30	
28th	1 4	
30th	0 55	
31st	0 72	
	——	13 days 10 in. 37 pts.
Total for year 1926 ..		51 days 28 in. 28 pts.

1927.

Date.	Rainfall. In. Pts.	Total.
January—		
2nd	0 28	
5th	0 13	
18th	4 12	
19th	0 91	
20th	1 3	
21st	0 73	
22nd	0 4	
23rd	0 39	
24th	0 40	
25th	0 25	
26th	0 35	
27th	0 7	
29th	0 72	
	——	13 days 9 in. 42 pts.
February—		
2nd	1 82	
5th	0 80	
6th	0 44	
13th	0 10	
22nd	0 20	
23rd	0 56	
	——	6 days 3 in. 92 pts.
March—		
2nd	0 13	
3rd	0 9	
4th	0 30	
5th	0 7	
6th	0 20	
7th	0 18	
8th	0 13	
13th	2 80	
14th	0 75	
23rd	0 47	
24th	1 9	
25th	1 50	
26th	0 40	
	——	13 days 8 in. 11 pts.
April—		
1st	0 51	
2nd	3 45	
6th	0 14	
18th	0 45	
27th	0 9	
	——	5 days 4 in. 64 pts.
May—		
12th	0 15	1 day 0 in. 15 pts.
June—		
4th	3 30	
5th	0 90	
17th	0 35	
18th	0 9	
	——	4 days 4 in. 64 pts.
July—		
7th	0 24	
8th	0 5	
22nd	0 18	
23rd	0 32	
	——	4 days 0 in. 79 pts.
August—		
2nd	0 4	
5th	0 18	
6th	0 3	
27th	0 35	
	——	4 days 0 in. 60 pts.
September—		
11th	0 44	
13th	0 7	
14th	0 3	
28th	0 45	
29th	0 6	
30th	0 7	
	——	6 days 1 in. 12 pts.
October—		
2nd	0 42	
14th	1 32	
15th	0 35	
23rd	0 14	
24th	0 75	
25th	0 59	
	——	6 days 3 in. 57 pts.
November—		
14th	0 22	
18th	0 13	
19th	0 75	
20th	1 37	
28th	0 94	
29th	1 0	
30th	0 7	
	——	7 days 4 in. 48 pts.
December—		
5th	0 35	
8th	0 18	
9th	0 40	
12th	0 15	
13th	0 40	
14th	0 62	
19th	0 22	
20th	0 18	
21st	0 7	
23rd	0 34	
24th	0 8	
25th	0 6	
28th	1 82	
	——	13 days 4 in. 87 pts.
Total for year 1927 ..		82 days 46 in. 31 pts.

Appendix D—*continued.*

ROSEBANK RAINFALL RECORDS—*continued.*

DAILY RAINFALL—*continued.*

1928.

Date.	Rainfall. In. Pts.	Total.
January—		
9th	0 3	
11th	0 28	
13th	0 50	
16th	0 47	
17th	0 9	
18th	0 11	
20th	1 25	
25th	0 5	
26th	0 5	
27th	0 4	
28th	0 50	
29th	0 13	
30th	0 24	
31st	1 16	
	——	14 days 4 in. 90 pts.
February—		
1st	0 25	
6th	0 76	
7th	0 6	
8th	1 28	
9th	0 50	
10th	1 33	
11th	0 34	
12th	0 23	
15th	4 94	
17th	1 95	
19th	1 68	
20th	0 39	
21st	0 22	
22nd	0 16	
23rd	0 80	
24th	0 33	
25th	0 4	
26th	1 80	
27th	0 24	
29th	0 8	
	——	20 days 17 in. 38 pts.
March—		
1st	0 20	
2nd	0 27	
3rd	0 13	
6th	0 17	
7th	0 4	
28th	0 9	
29th	0 12	
30th	0 30	
	——	8 days 1 in. 32 pts.
April—		
3rd	0 10	
4th	0 5	
7th	0 3	
16th	0 7	
18th	0 22	
19th	0 89	
20th	4 8	
21st	0 93	
22nd	2 94	
23rd	2 0	
24th	0 4	
	——	11 days 11 in. 35 pts.
May—		
29th	0 34	1 day 0 in. 34 pts.
June—		
6th	0 18	
13th	0 42	
14th	0 69	
20th	0 18	
21st	0 7	
24th	0 25	
25th	0 42	
26th	0 27	
29th	0 50	
30th	0 15	
	——	10 days 3 in. 13 pts.
July—		
17th	0 25	
25th	0 16	
	——	2 days 0 in. 41 pts.
August—	Nil.	
September—		
13th	0 10	
	——	1 day 0 in. 10 pts.
October—		
16th	0 4	
19th	0 11	
28th	0 17	
	——	3 days 0 in. 32 pts.
November—		
2nd	0 10	
6th	1 94	
13th	0 8	
20th	0 65	
23rd	0 7	
	——	5 days 2 in. 84 pts.
December—		
4th	0 9	
5th	0 23	
8th	0 97	
19th	0 4	
20th	1 0	
22nd	0 4	
23rd	0 2	
24th	0 24	
25th	0 35	
31st	0 14	
	——	10 days 3 in. 12 pts.
Total for year 1928 ..		85 days 45 in. 21 pts.

1929.

January—		
12th	1 30	
20th	6 20	
21st	3 11	
23rd	0 6	
25th	0 20	
	——	5 days 10 in. 87 pts.
February—		
7th	0 32	
8th	2 18	
9th	0 16	
10th	0 10	
11th	0 10	
12th	0 83	
17th	0 61	
18th	0 39	
20th	1 88	
21st	4 29	
22nd	1 10	
23rd	1 19	
24th	0 14	
	——	13 days 13 in. 29 pts.

Appendix E.

UPPER BURNETT AND CALLIDE LAND SETTLEMENT AREA.

WATER FACILITIES PROVIDED IN TERMS OF "THE UPPER BURNETT AND CALLIDE LAND SETTLEMENT ACT OF 1923."

Name of Selector.	Portion.	Parish.	Area.	Cost of Bore or Well.	Cost of Bore or Well charged to Selector.	Cost of Equipment (charged selector).
			A. R. P.	£ s. d.	£ s. d.	£ s. d.
E. N. Johnson	136	Prairie	366 1 0	94 8 2	94 8 2	168 11 11
A. J. Mack	130 and 130A	Bailey	191 0 0	53 12 2	53 12 2	96 16 5
E. J. Power	141	ditto	498 3 0	180 15 7	180 15 7	201 3 4
D. D. Spicer	11	Cannindah	316 2 0	42 6 6	42 6 6	119 0 11
F. Spencer	22	Prairie	188 3 0	87 16 10	87 16 10	165 0 4
S. F. Anderson	23	ditto	195 2 20	66 10 3	66 10 3	..
T. G. Iredale	53	ditto	283 2 33	57 16 8	57 16 8	..
T. J. Malone	138	Bailey	430 2 30	51 0 7	51 0 7	115 11 0
J. C. Malone	133 and 133A	ditto	338 0 20	35 15 3	35 15 3	123 8 5
P. G. Tollemache	56	Scoria	171 0 20	43 11 10	43 11 10	161 17 10
F. A. Tollemache	55	ditto	168 0 0	60 12 0	60 12 0	160 0 6
A. O. Gehrke	25	Kooingal	160 0 0	64 2 0	64 2 0	141 11 1
D. S. Malone	139	Bailey	429 0 20	65 10 1	65 10 1	..
J. Packham	13	Cannindah	251 0 20	233 1 3	Nil, failure.	..
				102 6 6	102 6 6	171 16 10
T. P. Rigney	24	ditto	509 2 10	44 12 3	44 12 3	119 18 10
S. Southwell	83	Bailey	293 0 0	56 9 9	56 9 9	123 14 6
W. G. Landgren	59 and 59A	ditto	214 0 20	158 0 9	158 0 9	..
E. D. Spletter	28	ditto	223 3 0	67 16 7	67 16 7	161 18 7
A. H. Adams	42	ditto	239 2 10	189 19 9	189 19 9	181 0 10
H. A. L. McKean	29	ditto	225 3 0	78 18 2	78 18 2	133 11 10
H. S. Spencer	58	Scoria	167 2 0	48 2 4	48 2 4	137 15 6
H. S. Kelly	25	Bailey	229 2 20	63 7 8	63 7 8	144 12 3
J. A. Coster	203	Prairie	170 2 0	55 2 8	55 2 8	198 11 0
T. Malone	134 and 134A	Bailey	334 0 20	121 10 0	Nil, failure.	..
				44 16 3	44 16 3	..
T. G. Cameron	120	Spier	484 3 10	83 11 9	83 11 9	156 5 3
J. P. Cronin	149	Prairie	509 1 0	43 0 9	43 0 9	139 12 6
B. C. P. Waine	137	ditto	366 2 0	41 0 6	41 0 6	160 17 4
H. C. Exeter	34	Spier	272 0 20	35 16 3	35 16 3	187 4 7
F. O. W. Burchardt	41	Prairie	195 0 20	26 8 4	26 8 4	..
H. E. Feldhahn	17	Spier	214 2 0	32 1 6	32 1 6	117 14 11
T. McLennan	54	Scoria	173 1 0	101 3 10	101 3 10	150 4 8
W. C. Paroz	40	Prairie	190 0 0	31 19 11	31 19 11	152 18 3
G. B. Showery	41	Spier	221 2 10	87 0 0	87 0 0	138 6 5
A. G. T. Bate	97	Bailey	259 1 0	35 7 4	35 7 4	155 10 1
G. E. Hodgetts	43	Spier	225 2 30	83 4 6	83 4 6	..
A. A. Russell	19	Scoria	183 0 0	75 13 7	75 13 7	146 14 11
M. Behrendorff	16	Prairie	411 2 20	76 7 8	76 7 8	152 8 9
W. N. Perry	46	ditto	453 1 30	30 2 2	30 2 2	..
E. W. Russell	22	Scoria	165 3 20	59 19 6	59 19 6	135 18 4
H. J. Stone	54	Bundalba	296 1 24	100 16 9	100 16 9	..
T. Payne	85	Bailey	268 3 0	33 19 0	33 19 0	140 6 8
G. R. Cox	98	ditto	270 2 0	26 9 5	26 9 5	..
B. Russell	21	Scoria	168 0 0	49 3 1	49 3 1	138 10 4
A. H. Russell	23	ditto	166 2 0	55 14 5	55 14 5	..
R. A. Tognolini	33	Prairie	210 2 30	87 3 4	87 3 4	186 9 8
E. A. Russell	20	Scoria	182 2 0	59 0 3	59 0 3	144 18 8
C. F. V. Schmidt	26	Clonmel	848 2 20	106 5 9	106 5 9	173 17 2
E. J. Basson	27	Bailey	226 3 0	111 16 7	111 16 7	..
W. Cronin	150	Prairie	187 3 0	89 5 10	89 5 10	..
A. C. Morante	132 and 132A	Bailey	118 3 10	39 18 0	Nil, failure.	..
				73 14 9	73 14 9	..
W. H. E. L'Estrange	48	Prairie	393 2 30	87 19 0	87 19 0	165 9 8
T. P. O'Donovan	84	Coppin	559 1 0	40 18 1	40 18 1	141 4 4
L. J. Russell	181	Prairie	190 0 0	72 12 10	72 12 10	136 7 4
H. J. Walter	48	Clonmel	355 1 0	59 1 1	59 1 1	219 6 4
H. B. Ridge	14	Scoria	162 2 0	75 10 5	75 10 5	143 18 5
J. F. King	5	Cannindah	482 1 30	135 11 1	135 11 1	..
J. H. Behrendorff	19	Prairie	229 1 20	79 17 0	79 17 0	140 1 1
A. A. F. Bainbrigge	179	ditto	336 2 30	121 7 4	121 7 4	172 18 3
T. O'Brien	68	ditto	318 0 0	83 3 0	83 3 0	143 16 1
T. J. Anderson	21	ditto	201 3 20	82 6 9	82 6 9	..
H. E. A. L'Estrange	45	Spier	223 3 20	87 4 2	87 4 2	..
M. Van Itallie	24	Prairie	222 2 20	70 13 7	70 13 7	145 3 8
T. A. Blackburn	12	Scoria	166 0 0	70 8 9	70 8 9	..
N. H. Robertson	174	Prairie	313 2 0	88 19 0	88 19 0	..
A. E. Baldwin	17	Cannindah	296 0 0	66 13 4	66 13 4	139 6 11
H. F. Kaden	12	ditto	313 2 20	43 11 0	43 11 0	..
D. J. Hanvin	124 and 124A	Bailey	243 2 0	92 0 1	Nil, failure.	..
				44 0 0	44 0 0	179 15 4
R. Evans	58	ditto	291 2 0	95 18 11	95 18 11	164 19 8
C. J. Cluff	76	ditto	472 2 0	70 3 8	70 3 8	132 15 8
B. Cavanagh	125 and 125A	ditto	217 2 1	35 0 5	35 0 5	..
T. Hungerford	140	Prairie	1,031 2 0	79 3 10	79 3 10	170 14 0
J. J. M. Davidson	105	Selene	176 3 0	383 5 10	234 7 8	211 6 9
S. Esposito and V. Zangari	34	Prairie	223 0 0	73 2 6	73 2 6	196 2 2
J. W. Harris	1	Clonmel	444 1 0	65 9 8	65 9 8	138 16 11
D. J. Hanvin, junr.	116	Bailey	25 1 26	55 18 6	55 18 6	162 10 5
H. D. O'Beirne	137 and 137A	ditto	298 2 0	38 12 5	38 12 5	..
T. Dent	11v	Clonmel	327 0 0	45 14 5	45 14 5	193 16 7

Appendix E—*continued.*

UPPER BURNETT AND CALLIDE LAND SETTLEMENT AREA—*continued.*

Name of Selector.	Portion.	Parish.	Area.			Cost of Bore or Well.			Cost of Bore or Well charged to Selector.			Cost of Equipment (charged Selector).		
			A.	R.	P.	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
J. T. Cluff	147	Bailey	313	0	0	90	6	10	90	6	10	134	19	4
C. R. Ridgway	115	ditto	24	2	0	41	1	8	41	1	8	138	8	6
N. J. Ridgway	114	ditto	28	0	20	37	15	4	37	15	4	131	16	8
J. Cooper	55	Bundalba	304	3	0	219	4	3	219	4	3	221	10	11
T. Daft	20	Coppin	323	2	0	53	2	6	53	2	6	136	19	9
J. Fraser	130	ditto	341	2	0	48	17	4	48	17	4	153	15	2
T. H. Harrison	129	ditto	343	2	0	33	1	1	33	1	1	163	16	0
J. K. Mouatt	4	Clonmel	573	1	0	49	2	11	49	2	11	147	2	7
G. Robertson	53	Bundalba	315	1	4	134	3	6	134	3	6	163	16	6
A. D. Cook	49	Scoria	207	0	0	98	15	10	98	15	10	172	16	9
J. H. Ninness	90	Prairie	209	1	0	92	17	8	92	17	8	194	13	8
F. W. Boon	29	Scoria	176	3	0	61	18	11	61	18	11	..		
W. J. Green	50	Bundalba	290	2	0	48	19	7	48	19	7	..		
A. Chandler	17	Prairie	397	0	0	338	15	9	264	9	0	..		
F. W. Hardwick	13	Scoria	159	0	10	74	16	7	74	16	7	139	19	7
W. B. Stephens	27	Prairie	163	0	0	98	15	0	98	15	0	..		
A. Grant	15	Scoria	155	0	0	87	17	0	87	17	0	137	7	0
J. W. Kurtz	24	ditto	168	3	20	90	2	0	90	2	0	145	7	9
A. H. Morrison	94	Bailey	401	1	20	55	14	1	55	14	1	139	12	11
F. L. Manthey	55	Prairie	316	1	11	65	6	4	65	6	4	..		
M. McInerney	200	ditto	160	0	30	112	12	9	112	12	9	138	3	8
W. H. Prior	166	Selene	150	2	10	219	18	7	219	18	7	176	4	2
A. H. Bulow	103	ditto	149	0	30	487	19	3	300	0	0	192	0	5
C. F. Goode	89	Bailey	619	2	0	63	14	5	63	14	5	145	18	3
E. D. Byrne	110	ditto	26	0	20	38	11	6	38	11	6	..		
F. D. Elliott	36	Prairie	216	0	0	177	12	2	177	12	2	168	1	4
T. Martin	104	ditto	227	2	20	147	13	9	147	13	9	185	10	0
D. Nicholson	67	Bailey	291	0	0	73	12	11	73	12	11	151	9	1
F. N. Walker	37	Prairie	223	2	20	47	18	2	47	18	2	124	10	10
A. McDermid	63 and 63A	Bailey	228	2	10	73	16	4	Nil, failure.			..		
						89	19	9	89	19	9	173	17	10
L. H. Behrendorff	20	Prairie	211	0	30	50	7	11	50	7	11	139	5	9
L. Harold	129	ditto	228	3	26	123	9	9	123	9	9	193	6	2
F. C. Rideout	67	ditto	325	0	20	83	3	9	83	3	9	94	9	0
R. S. Sutton	47	Spier	256	3	0	146	9	2	Nil, failure.			..		
						64	3	1	64	3	1	140	7	4
C. A. A. Timm	52	Prairie	278	1	0	66	16	8	66	16	8	..		
H. H. C. Patullo	201	ditto	159	1	10	161	9	4	161	9	4	..		
J. Maguire	34	Scoria	182	0	0	95	17	11	95	17	11	139	8	3
L. A. Walsh	16	ditto	187	2	0	94	1	11	94	1	11	..		
B. Maguire	37	ditto	289	2	30	102	19	2	102	19	2	144	11	1
B. J. Timm	35	Prairie	203	2	0	81	0	7	81	0	7	132	17	9
J. M. Hickey	157	ditto	195	0	0	171	8	10	171	8	10	..		
H. Chapman	24	Kooingal	157	0	0	107	6	1	107	6	1	155	9	1
A. Jones	44	Spier	211	1	0	102	18	5	102	18	5	151	17	0
P. Moore	93 and 93A	Bailey	237	2	20	24	19	10	24	19	10	..		
J. Peace	17	Scoria	177	2	0	114	1	0	114	1	0	..		
J. V. Ryan	128 and 128A	Bailey	210	1	4	83	2	2	83	2	2	..		
A. E. Balchin	60	Scoria	188	0	0	246	1	5	114	1	6	189	14	8
H. Houreld	17	Coppin	295	3	0	230	0	4	Nil, failure.			..		
						51	16	4	51	16	4	190	14	8
S. H. Moore	96	Bailey	244	0	0	55	3	0	55	3	0	..		
T. Coulson	58	Coppin	325	1	0	90	12	1	90	12	1	199	19	2
A. S. Meharry	30	Coppin	335	0	0	65	16	7	65	16	7	140	11	3
R. M. Boon	30	Scoria	222	3	0	66	4	11	66	4	11	125	5	9
A. N. Short	19	Tellebang	161	0	30	666	5	4	300	0	0	357	10	7
G. K. Stewart	136	Bailey	809	0	0	67	18	10	67	18	10	162	14	8
P. Miller	116	Prairie	179	2	20	85	3	7	85	3	7	163	18	1
H. H. Mathison	81	Coppin	357	2	0	44	9	1	44	9	1	145	14	2
F. I. Ninness	93	Prairie	262	0	0	102	7	5	102	7	5	35	3	10
G. W. Naldrett	90	Coppin	335	1	30	41	1	3	41	1	3	206	16	0
F. Randall	49	Bundalba	244	2	0	69	19	2	69	19	2	..		
R. O. Marshall	60 and 60A	Bailey	239	2	0	63	12	11	63	12	11	146	14	9
G. B. Mouatt	5	Clonmel	591	1	0	38	5	6	38	5	6	201	1	0
J. Hill	39	Kooingal	201	3	0	43	10	1	43	10	1	142	17	11
R. W. Rimmer	49	Clonmel	345	0	20	40	3	3	40	3	3	138	17	10
E. D. M. Jackson	22	Clonmel	401	1	0	47	13	1	47	13	1	141	18	1
A. H. Williams	65	Don	319	2	20	206	10	2	Nil, failure.			..		
						103	6	5	Nil, failure.			..		
						147	18	4	147	18	4	..		
T. E. Lord	124	Selene	227	3	20	137	5	6	137	5	6	173	15	9
P. Ashton	8	ditto	343	1	10	136	16	3	136	16	3	201	2	3
G. R. Anderson	91	Prairie	210	0	0	67	4	2	67	4	2	217	14	8
H. J. Thompson	8	Coppin	291	2	0	228	7	3	Nil, failure.			..		
						55	16	8	55	16	8	207	19	6
A. J. Petersen	40	Earlsfield	222	0	0	42	0	4	42	0	4	188	7	5
J. Taylor	108	Prairie	362	2	0	193	13	10	153	14	0	..		
G. J. Brock	169	Bundalba	298	0	3	238	14	6	238	14	6	224	1	6
P. Kennedy	21	Earlsfield	365	0	0	39	15	6	39	15	6	..		
A. Schunemann	197	Prairie	304	1	20	77	11	11	77	11	11	..		
R. Fulloon	25	Clonmel	880	3	0	53	12	10	53	12	10	..		
J. Higgin	120	Bailey	255	1	20	341	7	7	178	2	9	164	16	0
G. Weston	124	Prairie	196	0	0	86	14	6	86	14	6	..		

Appendix E—*continued.*

UPPER BURNETT AND CALLIDE LAND SETTLEMENT AREA—*continued.*

Name of Selector.	Portion.	Parish.	Area.	Cost of Bore or Well.	Cost of Bore or Well charged to Selector.	Cost of Equipment (charged Selector).
			A. R. P.	£ s. d.	£ s. d.	£ s. d.
H. N. Jones	32	Scoria	206 2 0	73 15 0	73 15 0	138 14 5
A. J. Skinner	25	Prairie	220 3 20	74 13 9	74 13 9	..
J. H. Ralph	113	Earlsfield	252 2 0	87 9 3	87 9 3	142 7 8
E. F. Schunemann	195	Prairie	304 2 10	38 8 2	38 8 2	147 2 2
G. C. Green	22	Coppin	385 2 0	131 8 7	78 0 0	85 17 6
J. Blaney	72	Priarie	282 1 20	40 12 0	40 12 0	197 6 8
J. McNamara	161	ditto	242 3 0	86 2 3	86 2 3	..
S. Ogle	18	Bailey	255 2 10	413 0 8	400 0 0	..
Q. F. Bleys	77	ditto	470 0 0	75 15 11	75 15 11	131 6 6
J. B. Loginoff	3	Kroombit	276 0 0	70 13 8	70 13 8	139 18 9
A. Baldwin	16	Cannindah	247 1 10	115 19 4	115 19 4	..
S. N. Dmitrieff	156	Prairie	233 0 0	29 14 11	29 14 11	143 9 8
F. Graham	4	Bailey	219 0 10	237 6 7	237 6 7	..
A. Evans	21	Kroombit	443 0 0	58 4 3	58 4 3	..
A. G. Dougall	16	Coppin	307 1 0	47 15 1	47 15 1	..
M. McGee	122	Bailey	208 3 0	41 17 5	41 17 5	..
G. V. N. Gooch	50	Clonmel	360 3 0	40 10 4	40 10 4	130 3 2
E. A. Ewald	122	Prairie	200 0 0	68 15 5	68 15 5	..
G. W. Nicholson	175	ditto	319 3 30	71 4 5	71 4 5	179 8 0
R. E. Chetter	18	Spier	250 1 30	90 13 1	90 13 1	155 4 6
J. F. Simpson	62	Scoria	186 1 0	41 3 3	41 3 3	144 4 10
K. G. Banks	95	Bailey	315 0 0	74 12 8	Nil, failure.	..
				219 5 10	219 5 10	..
P. J. Meagher	78	ditto	471 0 0	59 7 0	59 7 0	..
J. Gillies	134	Earlsfield	189 2 0	88 17 6	88 17 6	..
J. McInnes	93	Coppin	334 0 20	61 18 5	61 18 5	171 0 0
F. Mazzer	20	Kooingal	210 3 0	43 12 2	43 12 2	238 2 10
J. Logan	11	Bailey	236 2 0	495 11 11	300 0 0	..
A. Millard	24	Clonmel	486 0 0	43 12 2	43 12 2	131 9 9
C. W. Anders	121	Prairie	206 1 0	233 9 4	121 4 3	..
G. C. F. Staatz	46	Coppin	335 0 0	80 14 7	80 14 7	206 5 7
C. Beaton	23	Clonmel	399 0 0	53 15 7	53 15 7	..
J. B. Higgins	14	Spier	237 3 10	72 6 0	72 6 0	134 8 8
E. Wells	66	Coppin	342 0 0	71 7 9	71 7 9	155 2 9
C. O. Brown	115	Prairie	254 2 20	209 18 1	128 11 8	..
A. Kung	54	ditto	312 0 0	35 7 3	35 7 3	..
N. W. Smith	6	Clonmel	598 3 0	56 2 3	56 2 3	..
E. Hall	90 and 90A	Bailey	241 3 0	54 1 5	54 1 5	145 6 4
W. A. Gray	123	Prairie	187 2 0	41 19 10	41 19 10	212 19 9
A. Fraser	82	Coppin	517 3 0	42 16 3	42 16 3	..
T. V. W. Newton	94	Prairie	254 1 0	78 3 10	78 3 10	188 10 5
P. M. Sheehan	7	Cannindah	496 2 20	47 12 6	47 12 6	..
M. Wynne	8	Kroombit	373 3 20	60 15 3	60 15 3	149 14 11
G. H. Ezard	152	Prairie	546 1 0	60 17 6	60 17 6	149 17 9
G. Spence	64	ditto	302 0 20	43 1 5	43 1 5	161 3 5
D. Gorman	7	Coppin	293 1 0	121 2 1	121 2 1	237 13 10
H. M. Baynton	28	Kooingal	159 2 20	50 1 6	50 1 6	..
J. Byrne	119	Selene	173 3 10	319 14 3	319 14 3	266 11 7
J. W. Woods	37	Spier	166 2 0	54 4 10	54 4 10	153 2 8
G. A. Elliott	9	Coppin	296 2 0	95 14 2	95 14 2	..
N. F. Robinson	151	Prairie	252 3 20	73 6 7	73 6 7	..
W. Wilson	10	Coppin	267 2 20	78 3 5	78 3 5	..
T. W. Robinson and E. H. Robinson	102	Selene	195 3 0	148 2 9	148 2 9	238 18 11
N. S. King	138	Prairie	402 2 0	49 0 4	49 0 4	221 13 9
R. T. Jubb	192	ditto	496 2 0	85 16 5	85 16 5	183 4 7
A. T. Lynn	101	Selene	202 0 0	155 12 4	155 12 4	..
J. M. Brady	119	Spier	410 0 30	68 10 10	68 10 10	164 14 11
G. King, junr.	42	Cannindah	322 3 0	70 13 11	70 13 11	..
L. A. Baldwin	8	Cannindah	321 0 4	45 19 8	45 19 8	..
L. J. Cook	43	Coppin	384 0 0	42 10 2	42 10 2	192 7 1
C. Cuff	5	ditto	302 2 0	79 2 1	79 2 1	209 16 8
H. C. Hansen	81	Bailey	278 0 0	67 18 5	67 18 5	..
M. T. Jubb	191	Priarie	601 0 0	77 9 5	77 9 5	..
F. G. Dahtler	11	Clonmel	579 3 0	48 5 5	48 5 5	..
P. J. Hughes	20	Selene	899 2 0	94 15 4	94 15 4	..
A. P. Woodford	89	ditto	262 3 20	148 9 4	148 9 4	..
J. W. Piggott	24	Bailey	228 2 0	201 12 8	201 12 8	..
S. McCarthy	196	Prairie	304 1 20	93 11 1	93 11 1	..
R. Hardwick	144	ditto	733 0 0	224 11 0	Nil, failure.	..
				113 2 8	Nil, failure.	..
				249 4 6	249 4 6	..
F. G. Dahtler, junr.	15	Clonmel	694 1 0	49 7 1	49 7 1	..
H. Kent	100	Coppin	316 0 20	273 15 8	273 15 8	..
H. G. Waine	118	Prairie	171 2 0	60 0 9	60 0 9	..
W. F. Humprhries	145	Bailey	368 1 0	78 14 6	78 14 6	..
W. T. W. Neill	37	Earlsfield	192 3 0	Provided	own facility.	188 14 0
F. D. Behrendorff	18	Prairie	317 0 0	Provided	own facility.	130 4 7
G. W. Taylor	199	Prairie	304 1 10	235 16 7	235 16 7	..
A. C. Baynton	32	Kooingal	180 2 7	51 14 5	51 14 5	..

Appendix E—*continued.*

UPPER BURNETT AND CALLIDE LAND SETTLEMENT AREA—*continued.*

COMMON WATER SUPPLIES.

Name of Selector.	Portion.	Parish.	Area.	Cost of Bore or Well.	Cost of Bore or Well charged to Selector.	Cost of Equipment (charged Selector).
			A. R. P.	£ s. d.	£ s. d.	£ s. d.
J. H. Daly	7	Bailey	217 1 1	298 11 9	298 11 9	482 9 4
D. Chapman	6	ditto	226 1 0			
J. Emery	45	ditto	169 0 20			
A. B. Horn	46	ditto	169 1 0			
J. W. Fleming	133	Prairie	541 3 37	57 15 8	57 15 8	269 11 2
J. P. Fleming	134	ditto	373 0 21			
W. H. White	108	Selene	160 2 0	166 12 1	166 12 1	..
F. Holzl	107	ditto	154 3 20			
S. Woolley	17	Bailey	250 2 19			
A. N. Lennox	10	ditto	238 1 39	497 15 8	497 15 8	Not completed.
M. Kannar	34	ditto	232 1 10			
F. O. Griffith	35	ditto	240 0 10			
N. M. Roe	105	Coppin	323 0 30	150 0 0	150 0 0	Not completed.
W. J. Evans	103	ditto	315 0 20			

Appendix F.

UNSUCCESSFUL BORES.

Name of Selector.	Portion.	Parish.	Area.	Cost of Bore.
			A. R. P.	£ s. d.
E. J. McKenzie	119	Bailey	333 3 0	437 1 2
				165 9 7
F. C. Smith	129	Selene	214 3 20	174 0 0
J. Packham	13	Cannindah	251 0 20	233 1 3
A. C. Morante	132 and 132A	Bailey	118 3 10	39 18 0
T. Malone	134 and 134A	ditto	334 0 20	121 10 0
R. P. Johnson	99	Prairie	220 2 0	112 14 10
J. P. Fleming	134	ditto	373 0 21	144 19 10
				95 12 9
				182 3 4
				27 8 1
J. Errington	117	Selene	230 3 0	208 0 9
D. J. Hanvin	124 and 124A	Bailey	243 2 0	92 0 1
A. McDermid	63 and 63A	ditto	228 2 10	73 16 4
A. H. Williams	65	Don	319 2 20	206 10 2
				103 6 5
B. R. Thompson	162	Prairie	328 2 0	275 2 10
H. Houreld	17	Coppin	295 3 0	230 0 4
C. G. Skinner	122	Spier	464 1 20	418 9 4
W. B. Stephens	121	ditto	464 2 0	
R. S. Sutton	47	ditto	256 3 0	146 9 2
K. G. Banks	95	Bailey	315 0 0	74 12 8
H. J. Barnes	139	Prairie	960 1 0	170 8 7
				283 19 10
R. Hardwick	144	ditto	733 0 0	224 11 0
				113 2 8
H. J. Thompson	8	Coppin	291 2 0	228 7 3
J. Johnson	94	Earlsfield	323 3 0	266 19 10
J. H. Hutton	24	Coppin	477 1 0	468 5 11
C. G. Skinner	122	Spier	464 1 20	291 11 6
J. Curgenven	11	Coppin	283 0 0	167 3 5
M. J. Kindleysides	2	Kroombit	452 1 30	163 13 5

UNSUCCESSFUL BORES.

REASONS WHY BORES DECLARED FAILURES.

F. C. SMITH — Only 10 gallons per hour obtained at 315 ft.

E. J. McKENZIE — Bore sunk to depth of 486 ft. and flow of about 65 gallons per hour obtained. Selector claimed supply insufficient and, on advice of Commissioner of Irrigation, bore declared a failure.

E. J. McKENZIE (No. 2 Site) — Boring difficulties met with at 190 ft. straightening up hole and extracting piece of torn casing). Site abandoned.

H. HOURELD — Twenty-four gallons per hour obtained, 300 ft. Stratum at that level very hard and difficult to penetrate. Bore abandoned.

B. R. THOMSON — Good supply obtained, but water certified by analyst as being "Usable by stock, but too hard and saline to be classed as a good stock water." In the meantime casing withdrawn by Irrigation Commission.

J. ERRINGTON — Bore sunk to 300 ft. No water. Deepening was held in abeyance while a test bore was sunk in the locality. Good supply was struck in this test bore beyond the 300-ft. level. In the meantime selector had surrendered his selection. No further action was taken.

C. G. SKINNER — Depth 350 ft. Very hard stratum (basalt and boulder formation) met with.

C. G. SKINNER and W. B. STEPHENS — Depth 601 ft. 6 in. in very hard strata. Ninety gallons per hour, or 2,160 gallons per day obtained at 287 ft. in fine sand. Water could not be separated from the fine sand. Bore sunk to 601 ft. 6 in., but no further supply of water struck. Strata very hard; bore abandoned.

A. H. WILLIAMS — Depth 292 ft., impenetrable stratum met with. Site abandoned for substituted one.

A. H. WILLIAMS (No. 2 Site) — Depth 266 ft. Similar stratum as in first bore; site abandoned.

A. C. MORANTE — Depth 111 ft. Supply 800 gallons per hour. Suitability of water for stock doubtful. Declared a failure.

UNSUCCESSFUL BORES—*continued.*

REASONS WHY BORES DECLARED FAILURES—*continued.*

D. J. HANVIN	A supply of water struck at 197 ft. Very bitter and useless.
A. McDERMID	Three hundred and sixty gallons per hour of good water obtained in fine silt stratum. Unable to separate silt from water. Site abandoned for substituted one.
T. MALONE	Two hundred and fifty gallons per hour obtained at 300 ft. Suitability of water for stock doubtful. Declared a failure.
R. P. JOHNSON	Well 60 ft. Small soakage met with at that depth. Portion forfeited. To be deepened by boring when portion reselected.
R. S. SUTTON	Fifty gallons per hour met with at 253 ft. Supply inadequate. Deepened to 300 ft.; stratum soapstone. Site abandoned for substituted one.
K. G. BANKS	Depth 100 ft. 6 in. Boulders met with. Site abandoned for substituted one.
H. J. BARNES	Very hard stratum met with; depth 99 ft. 3 in
H. J. BARNES (No. 2)	Depth 175 ft. 3 in.; stratum granite.
J. H. HUTTON	Depth 612 ft.; stratum shale and limestone with layer of basalt. Site abandoned.
R. HARDWICK	Depth 97 ft. Hole crooked, preventing further sinking. Abandoned for substituted site.
R. HARDWICK (No. 2)	Depth 40 ft.; very hard stratum. Too costly to penetrate.
H. J. THOMPSON	Drill lost in bore hole at 297 ft. Efforts to recover unsuccessful. Site had to be abandoned and another located.
J. JOHNSON	Forty gallons per hour obtained at 610 ft. Water flowed over top of casing although only standing a test of 40 gallons per hour. Bore deepened to 630 ft., but supply not increased. Bore abandoned; supply insufficient.
M. J. KINDLEYSIDES	Two hundred gallons struck at 140 ft. in seam of fine sand. Impossible to finalise bore, as seam of sand was between slippery-back clays, choking water off. Water shut off and sinking continued. At 207 ft. 15 gallons per hour was obtained, and bore was continued to 345 ft. without striking further supply.
J. CURGENVEN	Depth 235 ft. Site abandoned owing to failure to remove obstruction—part of sinker bar and drill—in the hole. Small stream of 53 gallons per hour was met with at 87 ft., and drilling was continued to 235 ft. when driller had misfortune to loose tools in hole.
J. PACKHAM	Depth 118 ft. Exceptionally hard and difficult strata met with in bottom of bore. New site located.
J. P. FLEMING	Depth of facility, 300 ft.; well, 80 ft.; bore in bottom of well, 220 ft. Selector would not agree to further sinking. Site abandoned for substituted one.
J. P. FLEMING (No. 2)	Small stream of 10 gallons per hour struck at 235 ft. Prospects for better supply at greater depth appeared to be good. Granite struck at 380 ft. Boring continued to 390 ft. New site located.
J. P. FLEMING (No. 3)	Depth 108 ft. At 108 ft. no prospects of obtaining a supply at a greater depth. Site abandoned.

Price, 3*s*. 3*d*.]

By Authority: A. J. CUMMING, Government Printer, Brisbane.

Appendix G.

MAP OF THE UPPER BURNETT AND CALLIDE VALLEY LANDS

Scale 8 Miles to an Inch

8 6 4 2 0 8 16 24

Drawn at the Survey Office, Dept. of Public Lands, Brisbane, May 1929
Printed at the Govt. Printing Office.

Selected Land Tinted Red.
Available Land Tinted Blue.

NOTE:- The greater part of the area tinted blue comprises grazing land.